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# The Dynamics of Mega Infrastructure Decision-Making in Saudi Arabia

By Faisal Alsediary

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## Abstract

This research aims at understanding the dynamics of the macro institutional set up of decision-making regarding Mega infrastructure projects (MIP) in the Saudi context. It was noted in the literature review that, in the domain of project management, there are gaps of knowledge about decision-making in MIPs, that can be filled by studying the institutional culture of decision making in specific contexts. Because of the uniqueness of the context and the scarcity of studies on this aspect of the MIPs within Saudi Arabia, any meaningful inquiry must involve direct engagement with the key decision makers. Therefore, this research conducted interviews with key decision makers and high government officials regarding their process for decision-making for major projects.

The researcher looked into the relation of the Five-Year plan (FYP) to MIP in planning and development. The main findings from this research suggest that there are minor impacts of the FYP on the decision-making process in MIPs, and that there are conflicts between several key institutions on the vision and implementation of the FYP. The research concluded that MIPs are developed outside the hierarchy of national plans and that the development of MIPs play into power geometries by their political champions. This raises the long-term strategizing risk for the MIPs. The research also presents what can be deduced from the fifteen interviews as internal and external issues that can affect the MIPs decision making and development. The study concludes with recommendations for the overall institutional setup of decision-making in Saudi Arabia and recommendations for the FYP formation stages.

## Acknowledgment

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## Declaration

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or professional qualification except as specified.

Faisal Al-sedairy

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# Chapter I

## Introduction

## 1. Mega infrastructure projects: Characterization

Mega infrastructure projects (MIPs) are manifestations of human knowledge. They are vessels of human progress that showcase a society's advancement through the equal balance of project allocations. In which public infrastructure is provided to all without regional discrimination. MIPs reflect politics, rule and authority through a complex decision-making process. They are scientific advancements in which trains and bridges become limbs connecting a continent, desalination plants turn sea water into fresh water, and rockets that showed us the never-ending sea of space. Recently, MIPs have come to represent the human perception of Earth as a finite resource that must be respected. As a result, their planning and decision-making process is becoming an important topic for research.

MIPs definition in this thesis will address all projects of economic significance with large scale initiatives and aimed at contributing significantly towards social, political, economic and environmental development and advancement. These projects can be of soft infrastructure such as large shells of buildings, e.g., universities, or hard infrastructure such as high-speed railways.

It is important to understand that MIPs act as agents of change that help shape the contexts they are developed in. Graham and Marvin (2001) argue that MIPs generate strong social impacts that can be used to support multiple agendas. They also stimulate positive economic outcomes and produce social, environmental, and cultural benefits. Aschauer (1989) reasoned that they stimulate growth because they tend to advance productivity by, for example, reducing travel times and connecting distant locations. Aguilar (2003) further adds that mega projects in a developed city also helps the growth of nearby cities and generate a positive economic climate. Hall (1980) further noted that MIPs have a socio-cultural impact on a city, and cannot be split from the cultural

dimension due to their direct contact with city dwellers. For example, a metro project becomes embedded in to everyday life through the daily transportation of citizens; or in the case of the Sydney Opera House, a mega project can become an added asset to the culture. Jie et al. (2011) further asserted that MIPs tend to carry social attributes that affect the social context. As Jie et al. (2011) exemplifies the berlin wall as it caused social disparity, when it was built by the Democratic Republic of Germany to stop people fleeing from the Federal Republic of Germany.

MIP success is of great importance, for if they fail they would place huge strains on the country they are developed within, with the risk of becoming sunk costs that cannot be retrieved. Sturup (2009) noted that MIPs cause direct and critical impacts, and their consumption in terms of resources and budget requirements will ignite severe problems for governments if they go wrong. The leading goals of any mega project must be sustainable.

MIPs are collaborative undertakings that cannot be grasped by the few. Whether they are social, economic or environmental projects, they cannot be implemented through different visions. MIPs are a leap in which all the institutions of a society must be included within a single vision as they are planned as a whole rather than spirited sums. According to Dimitriou et al. (2010), MIPs are dependent on sustainable institutions that assure continuity of vision and follow a hierarchy of strategies and national plans to provide a context for successful mega projects.

This study explores the institutional set-up for macro decision making regarding MIP planning and decision making, specifically in the context of Saudi Arabia. The research examines the relationship of the Saudi Council of Ministers and Shura Council (regulative and executive authority) with other government agencies when planning MIP development. The research addresses the realities of this

relationship and provides an understanding of the culture governing projects as MIPs within the kingdom. This aspect is important and critical; very few studies have investigated the Saudi context because of the difficulty of accessing data in regard to this topic of research. This is the knowledge gap that the thesis aims to fill. This study contributes to building up future research through opening new topics of research regarding Saudi MIP planning and development.

### 1.1 Scope of research

The scope of this study is grounded within the institutional setup of decision making for MIPs within Saudi. The direction the study follows is not to obtain its data from certain case studies, but rather is based on collecting data from key decision makers regarding the culture of planning and development of MIPs. The nature of data collection is through interviews, where the questions focus on unravelling the relationships between key stakeholders in the decision-making process. The research examines the realities of this relationship and the extent to which they mirror official documents that state the development process of major decisions such as MIPS. The research finds out who are the real decision makers and what external or internal factors that affects the decision-making process. The research also examines the effects of the Five-Year Plans (FYP) in the decision process of MIPs within government institutions.

In the context of Saudi Arabia, the FYP is used as a planning agent for MIPs. The inception of mega projects in Saudi starts with the Ministry of Planning. The Ministry's role is to identify the country's needs and form policies that lead to progress. The Ministry then develops a FYP with government agencies. This plan is important to the decision-making process of MIPs, because it not only consists of government goals and policies, but also major programmes and mega projects, including budgets for each sector. For this reason, it is important to study the interrelations between the FYP and MIP development.

The research presented in this thesis is within the context of the Kingdom of Saudi Arabia. This is a country with 12% of global oil reserves or 264 billion barrels, holding one of the world's largest oil reserves. The Kingdom also has the largest production capacity in the world (i.e., 12.5 million barrels per day) (Riyadh, 2012). The oil industry produces 75% of state revenues. The Kingdom of Saudi Arabia has become one of the wealthiest countries in the Middle East, yet it is highly dependent on this natural resource. Rahman and Khondaker (2012) noted that revenues from oil exports accounted to around 75% of the state revenue and about 90% of total Saudi exports earnings.

Saudi Arabia's aspiration for development is no secret, and with its rich oil resources and zeal for development, the infrastructure sector is booming. According to Looney (1991), since the 1970s, the oil price boom encouraged Saudi on allocating billions to develop its infrastructure. It continues to invest in this sector. In 2010, the Saudi Council of Ministers approved a five-year development for infrastructure projects with a budget of 500 billion dollars which encompassed a number of sectors including transportation, education, healthcare, energy utilities, commercial, residential, industrial, and tourism development (Conner, 2010). For example, the Riyadh metro of 110-mile track containing six metro lines and 85 stations will be the largest urban mass transit system created from scratch when it will be opened in 2019 (Business Insider UK, 2017). The number of infrastructure developments has become an intriguing aspect of this research, and one that will be further investigated.

## 1.2 Problem statement: Gap of knowledge

Bony (2010) argues that in a period of intense globalization and internationalization, the field of management needs to further research the mechanisms of articulation between the local and the global. Developing knowledge and focusing on the particularities of different governments and

countries can provide significant benefits in the field of management. He also notes the need to develop a knowledge of institutional, social and political contexts to understand and develop project management in governments and countries.

Furthermore, Sanderson (2012) notes that at a time when performance issues “plague” mega projects, it has become important to understand the root causes of such outcomes. He points that one of the main issues linked to MIP performance is due to governance arrangements or the institutional setup, which sometimes can be weakened by underdeveloped governance mechanisms. Thus, the research here is focused around the macro institutional setup of MIP decision making within the kingdom of Saudi Arabia, a closed context that made data collection difficult, although there is a need to develop knowledge in a context where its booming with MIP development (see Chapter Two).

Duffield and Whitty (2015) assert the need to study organizations or institutions’ culture, to further benefit from the development of MIPs. They argue that one of the major reasons MIPs lack success is due to people factors, and how institutions think and act. Vaisey and Valentino (2018) further stress the importance of the cultural aspect within governments and their institutions and how it can be an influencer of the decision-making process. They argue that, while the science of economics provides the decision makers alternatives and choices, the cultural aspect might eliminate them or reduce the choices.

Biesenthal et al. (2018) note that from a strategic point of view it is extremely important to understand the institutional contexts that govern and create mega projects. They also emphasize that it is important for those who research mega projects to provide context to the institutional background that give birth to such projects.

Context is of great importance. It affects the way MIPs are produced, and “context awareness” is a key factor in successful decision making. Drawing awareness to a project’s context is a constructive way to address the risks, uncertainties and complexities that characterize MIPs (Dimitriou et al., 2012).

Based on these viewpoints taken from Chapter Three, there is a knowledge gap to be filled, regarding the institutional setup for decision making for a certain context such as Saudi Arabia. Chapter Two establishes that there is a scarcity of literature regarding MIP decision making within the Saudi context, providing an opportunity for this research to fill this gap.

### 1.3 Aims

- Understanding the macro institutional set up of decision making for Saudi’s Mega infrastructure projects and determining its issues and how they have manifested within the Saudi context.
- Providing contextual knowledge that generates guidance and recommendations to effective planning and decision making for the Five-Year Plan and Mega infrastructure development in Saudi.

### 1.4 Objectives

Several objectives were outlined to deliver the study aims. These objectives are as follows:

#### **-Objectives to find a gap of knowledge:**

1- Understanding the institutional set up of decision making for mega projects in the Kingdom of Saudi Arabia. This task provided the following:

- The nature of MIP development in Saudi

- The macro institutional setup that governs MIP planning and development.
- The executive and regulatory authorities' role in MIP planning and development.
- Understanding the FYPs role in MIP development

2- Conducting a literature review to identify the gap in knowledge that needs to be filled. This was done through the following aspects:

- MIP definition and historical threads
- MIPs as agents of change
- The realities of MIP (budget commitment issues)
- The formation agents of MIPs
- Success of MIPs between budget commitments and strategic effectiveness
- The effects of the institutional setup for decision making on MIPs' success
- The extent to which the country's context affects MIP planning and development

### **-Understanding the Saudi context and the peculiarities of its goals and policies:**

3- Conducting a pre-research stage in the form of an exploratory study:

- This will be done using a small sample of questioners with the regulative and executive authority to uncover the main goals and agendas of Saudi government. This process also relies on both present and historical data, including early FYPs goals. The research aims to further understand the studied context and its peculiarities.

### **-Objectives on fulfilling the gap of knowledge aimed by the research which are:**



4- Conducting an explanatory study using a thematic analysis for interviews with key decision makers:

- This will be done to understand the real practices and politics of the Saudi institutional setup for MIP decision making and the effects of the FYP on MIP development.

5- Building a discussion on the outcomes of the analysis:

- To provide new knowledge regarding the institutional setup for MIP planning and decision making in the kingdom of Saudi Arabia.

6- Concluding the research with recommendations to the planning and decision making for MIPs in the kingdom of Saudi Arabia.

### 1.5 Research questions

In addition to the main research intentions, as expressed by the aims above, the research also hopes to answer a series of additional and supplementary questions closely related to the primary aim. These questions have emerged through a full contextual understanding of the problem and consideration of associated literature and are:

- Who are the decision makers or involved authorities that impact the direction of the FYPs?
- To what extent are the annual budgets interlinked with the FYP budgets?
- What impacts will the country experience as a result of the current institutional capabilities of planning and development regarding MIPs?
- Who benefits from this current institutional framework?
- What current goals and agendas are important in the Saudi context?
- Does the Saudi geopolitical location affects its long-term visions and goals?

- Do changing oil revenues affect the implementation of the FYP?
- Are there characteristics of centralization while planning, developing and implementing FYPs?
- Is there a developed vision of the economic, social and environmental sustainability of the Kingdom?
- Are there political champions that contribute to MIP development outside the FYP framework?

## 1.6 Outcomes

The thesis aims to present the realities of how MIPs are planned and developed within the Saudi context and the relation between FYP and MIPs in decision making. In particular filling a gap of knowledge in regard to the Saudi institutional set-up for MIP planning and decision making. This outcome will be pursued through an explanatory perspective by examining internal and external issues through the collected data. the research explains external and internal aspect that effect MIP decision making and the inability to follow national plans when developing MIPs.

## 1.7 Beneficiaries of the study

The outcomes of this study will be beneficial to the following:

- *The public sector in Saudi Arabia and similar contexts:* Those involved in the formation of FYPs, such as the Ministry of Planning, will be considered one of the main beneficiaries of the study. The outcomes of this research can also be considered for similar contexts which employ mid-term plans for MIP development and share the same institutional structure as Saudi Arabia.
- *Practitioners and consultancy firms working on the Saudi context:* the Saudi government hires consultancies while planning FYPs and MIPs.

Those consultancy firms will be provided with contextual knowledge that would benefit on developing their recommendations.

- *Saudi decision makers*: The research on the current decision and planning structure will help inform Saudi decision makers about the lack of sustainability.

The outcomes will also benefit researchers in the following areas:

- *Mid-term national plans*: Researchers who focus on national plans such as the Saudi FYP, will benefit from details about this context.
- *Decision-making processes for mega projects*: The research will identify issues and make recommendations about MIP decision making in Saudi Arabia.
- *Contextual studies of Saudi Arabia's MIP development*: Researchers interested in MIP decision making in Saudi Arabia will be provided with knowledge regarding the main issues facing MIP planning and decision making in Saudi.

## 1.8 Summary

This chapter starts with an introductory background to MIPs and overviews the scope of this research: the relationship between national plans and MIP development in the context of Saudi Arabia. The chapter then presents the problem statement and identify why it is important to examine the Saudi institutional set-up for MIP development. Aims and objectives follow the problem statement. In addition to the aims and objectives of the research, the chapter introduces further research questions that complement the overall study. Next, the chapter highlights on what the anticipated outcome of the research, and what will it generate in arguments. Finally, the chapter highlights the beneficiaries from the study.

## 1.9 Thesis structure

The thesis starts with an introduction to the Saudi context and a literature review that forms a base for the research. Next, a methodology and method chapter details the data collection processes, analysis tools and the main methodology driving the research. The following chapters provide an analysis of the collected data and present the outcomes. In the discussion chapter, the research builds upon the interviews analysis and discussing what can it produce as new knowledge to the context of the study. The final chapter concludes the main outcomes of the research and the limitations faced by the researcher. The following is a brief overview of this thesis:

- **Chapter Two: The Institutional Set-Up of Decision Making within the Saudi Context**

This chapter introduces the context of the study, Saudi Arabia and focuses on its MIP planning and development practices. The researcher will first explore the historical background of the political structure, the current institutional set up of decision making and the formation of the FYP.

- **Chapter Three: Impacts of Mega Infrastructure Projects and its Planning and Development Considerations**

The literature review explores the academic research related to MIP planning and decision-making processes. The impact of MIPs whether economic, environmental, social or political. The effects of institutions or the institutional set-up for decision making on MIPs success.

- **Chapter Four: Methods and Methodology**

The chapter makes a case for the methodology of the study, explains how the researcher came to these methods used, and argues why they are the most suitable to answer the research questions. The chapter also showcases the

data collected and discusses the representatives, how they were collected, why they are only decision makers included.

- **Chapter Five: The Peculiarities of The Saudi Context Goals and Vision**

This chapter is an exploratory pre-research stage and aims to understand the studied context, in particular FYP's leading goals. The Peculiarities of these goals and their connection to the institutional culture of Saudi.

- **Chapter six: Qualitative analysis of Interviews with Saudi Decision-Makers**

This chapter summarizes the results of the explanatory research, which includes thematic analysis of semi structured interviews, in order to uncover the main issues facing MIP development and issues related to the FYP formation and implementation.

- **Chapter Seven: Discussion**

This chapter will be discussing the interviews analysis to understand and explore what these results mean to the real world of MIP planning and development. Making sense of them in a way that provides new knowledge about national plans and MIPs planning and decision making in Saudi.

- **Chapter Eight: Conclusion and Recommendations**

The final chapter argues that this research has generated new knowledge and contextual knowledge to the topic of study. This chapter also reflects on the original aims and objectives. The chapter concludes with recommendations and further research possibilities.



# CHAPTER II

## The Institutional Set-Up of Decision Making in Saudi Arabia

## 2. Introduction

This chapter aims to provide a contextual background to the topic of the study. It will describe the political structure of the government and the main decision-making authorities for Mega infrastructure projects (MIP) and the Five-Year Plan (FYP). Furthermore, the chapter will explore MIP development in Saudi and offer an overview of FYPs in Saudi.

Sections 1 and 3 of this chapter provide the historical and current landscapes of Saudi governance and decision making. The first section explores the history of the political structure and the decision-making authorities from the early stages of the country until the emergence of the FYP as an aid to making decisions about mega projects and developments. Section 2 provides contextual depth to the development of MIPs within the Saudi context. Section 3 explores the current authorities for approving the FYP and MIPs. Section 3 is followed by an exploration of the FYP and the effects they have had on Saudi development in section 4. Section 5 identify and explores the current decision-making process for FYP. Finally, Section 6 explores the main aspects that can be considered as gaps in knowledge.

### 2.1 Political history of Saudi Arabia

King Abdulaziz who established the Kingdom of Saudi Arabia was from the Najd region, which is the central of kingdom. Najd is a mix of landowners and Bedouin tribes. The royal family of Al-Saud were, as Al-Rasheed (2010) notes, of a landholding merchant class of Najd. The family of Al-Saud in the 18<sup>th</sup> century were the rulers of a small settlement in Najd called Diriyah. From there they led an aggressive expansion by uniting landowners and tribal chiefs within the Najd region. This expansion was also based on adoption and the spreading of the Wahhabi movement, a version of Islam attributed to the reformer Muhammad Ibn Abd Al-Wahhab, a religious scholar who lived in Diriyah in the 18<sup>th</sup> century. The Al-Saud family was very successful in expanding the power of the Najd



region and occupying most of the Arabian Peninsula, but as their influence grew the Saudi rulers faced opposition from the Ottoman empire. This led to the dissolution of the Al-Saud power and eventually as pressure was mounted on them by the Ottoman Empire the family fled to Kuwait, which was under the protection of the British empire and became a safe haven for the Al-Saud family. In 1902, King Abdulaziz returned from exile in Kuwait to resume his family's rule over the Najd region and attacked Riyadh, a small settlement in the Najd region that turned out to be the base for planning the future war with rulers along the Arabian Peninsula. This took the king thirty years and more than 52 battles (Al-Rasheed, 2010). The kingdom in its current form was subsequently established in 1932 by Ibn Saud, with Riyadh as its capital.

Al Awaji (2014) notes that, in its first 30 years as a country, the Kingdom's priorities were unification, security and stability in the annexed areas. Therefore, the creation of governmental institutions of management wasn't apparent until 1932. In the beginning, a prince, a judge and a financial manager were appointed for each region. The Hejaz region, which joined the Kingdom in 1924 before the complete unification in 1932, had a more complicated structure due to the influence of the Ottoman rule and its openness to the Muslim world, which differentiated it from the other regions. Much of the modern institutional setup of the Kingdom evolved from the Hejaz Region. As Al Awaji (2014) argues, the modern Saudi management structure was developed on the basis of the Hejaz institutional structure. From Mecca, which is the capital of Hejaz, the first administrative organizations and administrative systems were formulated, such as the Basic Instructions of 1926, the Shura Council, the Council of Procurators and the Local Councils, although their implementation remained limited to Mecca. Institutional development followed with six new ministries, until the establishment of the Council of Ministers in 1953.

One of the important ministries while the kingdom was growing was the ministry of finance. The finance ministry was set up as the General Directorate of Finance in 1927, before being renamed as the Ministry of Finance in 1932 (Ministry of Finance, 2018). The staggering growth of the Kingdom's economy was mostly governed by the Ministry of Finance. This led to a number of institutions being established under the Ministry of Finance focusing on specific sectors of the economy, such as a petroleum and gas directorate, public administration affairs, real estate development fund, roads authority and railway authority (O'Kane, 2013). Historically, establishments that were under the Ministry of Finance are as follows: General Directorate of Public Works, General Directorate of Customs, Directorate of Agriculture and Water, Hajj, Endowment and Radio Affairs, Staff and Pensioners' Court, Labor and Labor Law, Public Administration Institute, Transport and Communications Agency. There are also development funds such as real estate, industrial, credit, agricultural bank, public investments, and government departments such as the Zakat and Income Tax Authority, retirement and general statistics, as well as offices for companies and urban projects (Ministry of Finance, 2018). Many of these directorates have grown to become separate institutions and ministries.

As revenues started to grow from oil production, there was a boom of mega infrastructure projects, and by the late sixties the government felt the need to develop these mega projects within a framework that would achieve their goals as efficiently and effectively as possible. Thus, the FYP came to fruition in 1970. As Sicherman (2011) notes, the objective was to provide the government with the tools to become a modern technological society. The FYP would become the institutional setup governing major projects.

## 2.2 Mega infrastructure development in Saudi

Before 1948, Saudi Arabia was considered an economically poor country; 90 percent of the population was split between nomads and farmers. Between

1948-52, the country saw a change with the exploration of the oil reserves. Saudi Arabia's first formal budget was prepared in 1948, and as revenues started to build and basic infrastructure developed, a huge appetite for MIPs was evident. In 1951, Saudi Arabia conducted its first major MIP, the 52 million USD Dammam-Riyadh railway project. At the time, oil revenue was about 50 million USD per year. As the rapid development of infrastructure continued, substantial metropolitan centres emerged in Riyadh, Jeddah, Dammam, Mecca, Medina and Hofuf (Ministry of Planning, 2015).

Until 1970, institutional expansion followed the increase in the oil revenues and assured the country's growth (Ministry of Planning, 2015), with progress mainly focused on health, education and physical infrastructure. Looney (1992) wrote that the eighties saw a government that had moved toward larger projects that utilized the large sums of available capital gained from oil revenues. Three such examples showcasing the jump in MIP development are:

- King Khalid International Airport (KKIA)

King Khalid international airport was completed in 1983, a major project that has five terminals containing 40 aero-bridges. Its car park has a capacity of 11,600 vehicles. The airport has an additional royal terminal. The land area of the project is 375 sq km (93,000 acres), making it the second largest airport after King Fahad International Airport (King Khalid International Airport, 2018). The project was designed by architectural firm HOK and on behalf of the Saudi government, the Saudi Arabia Bechtel Company (Sabco) served as its construction manager (King Khalid International Airport, 2018). The airport is located in Riyadh, the capital of Saudi.

- King Abdulaziz International Airport

The airport is considered of significant importance to the government as it is the gateway for Hajj and Umrah pilgrims to the Holy Mosque. It has the fourth

largest terminal in the world, which is the hajj terminal. The hajj terminal is 510,000 sq m in size. The airport is located north of Jeddah city, being in close proximity to both Mecca and Madinah, two holy cities within the kingdom. The airport opened in 1981 (King Abdulaziz International Airport, 2018).

- Princess Noura University:

The project covers around 800 hectares and costed 5.3 billion USD. It was delivered in less than three years after construction started in 2008. The university includes 15 colleges, a 700-bed university hospital, a central library, laboratories and three research centres for nanotechnology, information technology and biosciences and a major conference hall. The project includes housing units for its staff, along with student hostels and administration buildings and recreational facilities. The university also has its own train system that connects all its campuses (Arabianindustry, 2018).

To this day, the Saudi context continues to show its appetite toward MIPs. For example, the Saudi Council of Ministers approved a five-year development of infrastructure projects that had a budget of 500 billion USD including transportation, education, healthcare, energy utilities, commercial, residential, industrial and tourist development (Conner, 2010). One important example is:

- Riyadh Metro

The metro project is underway, with more than 50% constructed as of early 2017. It is scheduled for delivery in 2019. The project of 23 billion USD will consist of six metro lines and 85 stations that are split into 50 underground, 31 elevated and 4 ground level stations. The Arriyadh Development Authority (ADA) which is overseeing the project reports that the project aims to increase public transportation usage from 2% to 20%. The ADA further adds, on the economic impact of the project, that every 1 USD spent on the project will generate 3.40

USD in economic returns. Along with the Riyadh metro project, there will be a 1230 km, 24-line bus network costing an additional 4 billion USD in investments (Barrow, 2017).

Nevertheless, by the time of this research in the middle of the second decade of the 21<sup>st</sup> century, Saudi development has taken a slower approach following a drop in oil prices and the country's involvement with the Yemen conflict. This has resulted in the tenth Five-year Plan being put on hold. This situation is not new, and has a historical resemblance to situations found during past FYPs, which were impacted due to external political influences or changes in the oil market. For example, the fourth and fifth plan were affected by external political inputs and changes in the oil market. Section (2.4) contains a further discussion on these two instances. By the end of this research, however, the oil market had started to recover, and new mega projects are now being planned, an example being:

- Neom city:

Neom will be an economic city that the Saudi government has just started on.

The city will focus on having nine specialized sectors, which are:

- Energy
- Water
- Mobility
- Biotech
- Food
- Technological & digital sciences
- Advanced manufacturing
- Media
- Entertainment

The aim of these nine sectors will be to help diversify the economy and stimulate growth. The project will have a budget of 500 billion USD, in contrast to the nation's first major MIP, the 52 million USD Dammam-Riyadh railway. Neom is located in the northwestern region of the kingdom. It will be spread over 26,500 sq km, with a coastline stretching 468 km (NEOM, 2018).

### 2.3 Political structure

Authorities of the state consist of: *Judicial authority, Executive authority and Regulatory authority*. Because the Kingdom of Saudi Arabia is an absolute monarchy, the King is the final authority. The executive authority is represented by the Council of Ministers, and the King *is the Prime Minister*. Therefore, the role of the king sits at the very top of the authority hierarchy, whereby the final approval on macro decision making such as MIPs and Five-year Plans has to be accorded by the King. The regulatory authority is exercised and represented by the Council of Ministers and the Shura Council (The Bureau of Experts, 2013). Further, high governmental official such as Shura and Council of Minister members are appointed by the King.

Since the FYP and MIPs and their formation falls within the ambit of the regulatory and executive authorities, this study will focus on the Council of Ministers (both executive and regulatory authority) and the Shura Council (regulatory authority). According to the Ministry of Planning (2015), all major projects must fall within the framework of the FYP.

The subsection will go over each of the regulatory and executive authority institutions in order to understand their level of involvement in their role as the decision makers for MIPs and in the formation of the national plans. The outcome will facilitate agreement on the main points of investigation regarding the planning and development of Saudi MIPs and FYPs.

The following subsections will provide further details about the decision-making and political structure of the kingdom.

### 2.3.1 Council of Ministers

The Bureau of Experts (2013) outlines the responsibilities of the Council of Ministers as follows:

*“it shall draw up the internal, external, financial, economic, educational and defence policies as well the general affairs of the state and shall supervise their implementation. It will also review the resolutions of the Shura council. It shall have the executive authority and be the final authority in financial and administrative affairs of all ministries and other government agencies.”*

The executive powers of the council are further detailed in article 24 of the Council of Ministers law as noted by The Bureau of Experts (2013):

*“The council, being the directive executive authority shall have full power over all executive and administrative affairs. The following shall be included in its executive powers:*

- *Monitoring the implementations of laws, regulations and resolutions.*
- *Establishing and organizing public institutions.*
- *Following up on the implementations of the general development plan.*
- *Setting up committees for the review of the ministers and other Governmental agencies conduct of business as well as any specific case.*

*Said committees shall submit the findings of their review at the time set by the council. The council shall consider such findings and shall have the right to set up committees of investigation accordingly to draw a final conclusion, subject to laws and regulations.”*

Furthermore, each ministry or government agency must submit to the head of the council of ministries a report of what has been achieved on the development plan for the previous fiscal year. It should be submitted within (90) days from the beginning of each fiscal year. Its aim is to identify difficulties encountered and proposals to overcome such difficulties (The Bureau of Experts, 2013). Table 2.1

illustrates the council actions in regards to stakeholder involvement and its authorities as a final decision maker. Categorizing the noted above to clarify their role in the institutional set up of decision making.

The administrative structure of the Council of Ministers is comprised of the following agencies (The Bureau of Experts, 2013):

- The Office of the President/Prime minister of the Council of Ministers
- The General Secretariat of the Council of Ministers
- The Bureau of Experts

**Table 2.1 the Council of Ministries**

**Source: The Bureau of Experts, 2013**

Notes: 'Article 19' refers to a rule within the Saudi Basic law or constitution

	Stakeholder involvement	Final decision maker
Article19	It shall draw up the internal, external, financial, economic, educational and defense polices as well the general affairs of the state and shall supervise their implementation. It will also review the resolutions of the Shura council	It shall have the executive authority and be the final authority in financial and administrative of all ministries and other government agencies
Article24	<p>The following shall be included in its executive powers:</p> <ul style="list-style-type: none"> <li>• Mentoring the implementations of laws, regulations and resolutions.</li> <li>• Establishing and organizing public institutions.</li> <li>• Following up on the implementations of the general development plan.</li> <li>• Setting up committees for the review of the ministers and other governmental agencies conduct of business as well as any specific case. Said committees shall submit the findings of their review at the time set by the</li> </ul>	The council, being the directive executive authority shall have full power over all executive and administrative affairs



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council. The council shall consider such findings and shall have the right to set up committees of investigation accordingly to draw a final conclusion, subject to laws and regulations

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The study will also look into the impact of the Bureau of Experts in relation to the decision-making of the Council.

#### *The Bureau of Experts:*

Within the bureau the General Panel of Counsellors consists of the Chief, Vice-Chief and Assistant Chief as well as Bureau of Experts (BOE) counsellors. The BOE focuses its study on drafting laws and regulations and general rules prepared by a member of the Panel or what the Chairman decides to bring before the Panel. The bureau members can also participate in external committees to review certain issues, take part in quasi-judicial committees, or to attend conventions and seminars (The Bureau of Experts, 2015).

Duties the Bureau of experts as noted by the Bureau of Experts (2015):

- Review and study case-files referred by the Prime Minister, Deputy Prime Minister or the Second Deputy Prime Minister, and the Council of Ministers and its sub-committees.
- Prepare draft laws and their required studies, in cooperation with the agency concerned with each law.
- Review and propose amendments to current laws.
- Study agreements and case-files establishing general rules or requiring issuance of royal decrees or those which concern more than one government agency.
- Draft appropriate forms for high orders, royal decrees and Council of Ministers resolutions.

- Join government agencies in reviewing issues brought before the Supreme Authority, the Council of Ministers or other Supreme Councils.

Further to add the position of deputy prime minister is given to the Crown Prince of the kingdom. The position of Second Deputy Prime Minister has been removed from the political structure as of May 2017 (Sabq, 2018).

### 2.3.2 Shura Council

The Shura Council consists of a chairman and one hundred and fifty members chosen by the King from among scholars, experts, and specialists, provided that women representation be no less than 20% of the members. Article (15) of the Shura law states that it should express its opinion on the public policy of the state referred to it by the Prime Minister. It will also have the right to exercise the following:

- Review and comment on the general plan for economic and social development.
- Review and provide recommendations on laws and regulations, treaties, international agreements and concessions.
- Construe laws.
- Review and provide recommendations on annual reports submitted by ministries and other government agencies.

The Shura Council's decisions on any subject is sent to the Council of Ministers. Article (17) states that if the views of both the Council of Ministers and the Shura Council are aligned, a resolution will come into effect following the King's approval. In the event that the views of the two councils are conflicting, it will be referred back to the Shura Council with the council of ministers' viewpoints and views on the disputed issue to be amended. However, if the Shura Council does

not accept the Council of Ministers' views, it will be brought to the King for appropriate action.

The Shura Council also has the authority to submit a request to the Prime Minister to call any government official to attend the sessions of the Shura Council when matters relating to his jurisdiction are discussed. He would have the right to participate in the discussion but not the right to vote (The Bureau of Experts, 2015). Table 2.2 categorize the shuras responsibilities under stakeholder involvement within the political structure and its position in decision making.

**Table 2.2 the Shura council**  
**Experts, 2015**

**Source: The Bureau of**

	Stakeholder involvement	Decision making
Article15	<p>It shall express its opinion on the public policy of the state referred to it by the Prime Minister. It shall specifically have the right to exercise the following:</p> <ul style="list-style-type: none"> <li>• Review and comment on the general plan for economic and social development.</li> <li>• Review and provide recommendations on laws and regulations, treaties, international agreements and concessions.</li> <li>• Construe laws</li> <li>• Review and provide recommendations on annual reports submitted by ministries and other government agencies.</li> </ul>	
Article17		<p>The Shura Council's resolutions shall be brought before the King who shall decide the resolutions to be referred to the Council of Ministries;</p> <ul style="list-style-type: none"> <li>• If the views of both the Council of Ministries and the Shura Council concede, the resolutions shall come into effect following the King's approval.</li> </ul>

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- If the views of the two councils are at variance, the matter shall be referred back to the Shura Council to express its views on such variance and bring it before the King to take appropriate action.

Article20 seek the assistance of non-council members upon the approval of the Chairman of the Council.

Article22 submit a request to the Prime Minister to call any government official to attend the sessions of the Shura Council when matters relating to his jurisdiction are discussed. He shall have the rights to participate in the discussion but not the right to vote.

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A Shura Council report (2015) states that between 27/2/2009 and 23/12/2014 the Shura Council managed to discuss 580 subjects; of these 580 subjects, 560 decisions were made. The report states that these subjects included laws and regulations and yearly reports of government institutions.

The decision documents revealed some mention of MIPs and possible consideration of them as part of the ministries' yearly plan reports (Shura Council, 2004). There is no mention of these as part of an approval process, but rather the focus is on the consultative tasks embedded in its design or delivery. Further investigation is needed into this subject to provide a better understanding of the Shura Council's role in decision making for mega projects.

Furthermore the Shura Council is one of the most active group of government agencies with public stakeholders. As they receive more than 8000 recommendation letters annually from the public stakeholders (Alwatan, 2016).

### 2.3.3 Summary of Saudi governance: Implications for this research

Clearly, the law positions the King as the final authority; he has the power to fully steer the Council if needed. This aspect gives room for political influencers that may push certain MIPs by influencing the King outside the planning framework, raising the possibilities of MIPs outside the FYP and of “political champions”. Dimitriou et al. (2013) note that political influencers are those that push for approval of projects against all odds. These aspects are investigated further in the following chapters.

The law regarding the Council of Ministers does not clearly note its responsibility in regard to MIPs, though the Council does have the authority to set up a committee on any aspect of government output (i.e., an MIP and its decision-making process). The law clearly highlights the importance of the FYP progress, and a review should be submitted within the first 90 days of each fiscal year. Thus, the Council is well informed of the progress of the FYP and the law further adds that solutions will be formulated to overcome any problems.

While the text showcase that BOE is under the council of ministers it does not include itself in the process of decision making for any MIPs, by law they receive whatever the Council of Ministers send as consultancy requests. From this perspective, one could argue that an MIP could be affected by them if a request was sent by the Council of Ministers. An interview with the BOE member is needed to uncover this aspect.

Based on the Shura’s past decisions, their impact on the decision-making process of MIPs is still not clear. Interviews will be needed to understand their involvement and the impact of their reviews during the FYP formation process.

The basic laws of the Kingdom of Saudi Arabia’s regulative and executive authorities do not afford any specific attention to MIPs. However, the law clearly

declares that the Council draws up the internal, external, financial, economic, educational and defence policies, as well as the general affairs of the state. This seems highly centralized. Deeper insight is required in order to investigate this paradox and the effects of centralization on MIPs development.

## 2.4 The Saudi Five-Year Plan

The birth of mega projects in Saudi starts with the Ministry of Planning. The Ministry's role is to identify the country's needs and form policies that further its progress. The Ministry then develops a FYP with government agencies. Each plan highlights the goals and policies for the government and major programmes and projects with their budgets for each sector. Started more than four decades ago, in 1970, the FYP became a planning tool for the government that must align with their long-term vision and strategies.

The main components of the plan are the objectives, policies, targets, key issues, financial and human resources requirements, programmes, and projects for government agencies and ministries for the next five years they are detailed as follow by the Ministry of Planning (2015):

### ❖ The Plan document:

- Review and evaluation of a past development Plan.
- Major development issues at the macroeconomic and sectoral levels.
- Future vision, objectives and policies of the next Development Plan.

### ❖ Operational plan:

- Detailed plans for each individual government agencies that defines policies, objectives, key issues, targets, financial and human resources requirements, and projects and programmes.

- ❖ Regional Plans: individual detailed plan for each region with the following:
  - Evaluation of the social and economic conditions.
  - Policies, objectives, projects and programmes as operational plans for each region.

The FYP document is also followed by monitoring reports that are produced annually and prepared by the Ministry of Planning with the cooperation of all government Agencies. It would include the following:

- Assesses the performance of the Plan.
- Monitors implementation of programmes and projects.
- Evaluate if achievements are in line with the planned objectives or not.
- Core issues and barriers to implementation.

#### 2.4.1 The Five-year Plans

From 1970-2014, Saudi Arabia has been subject to nine FYPs. The tenth FYP was put on hold as the government decided to postpone the plan, although the Ministry of Planning released the goals of the tenth FYP on its official website. The postpone was due to the 2015 severe crash in the oil market that has forced the government to restructure its assets through a national plan called “National Transformation Programme 2020.” The programme also aims to raise certain institutional qualities and efficiency. Upon completion of the programme, the FYP would return back, yet there is no certainty that it may return under the name “Five-year Plan.”

The Ministry of Planning (2015) noted that the first FYP was developed within an economy dominated by three main characteristics: dependence on oil, manpower problems, and rapid progress in all sectors. These remain pressing issues in the Saudi context. The first plan was implemented during a period when oil profits were derived mainly as royalties and taxes from oil producing companies, but were significantly lower than the export value of the oil at posted

prices. Thus, as Mahdavi (2014) notes, it started a strategy to profit as much as possible from the oil sector by planning the nationalization of Saudi oil in 1980. Nevertheless, while the first FYP was implemented in weak economic conditions, by the second year of the plan the Kingdom was in a more favourable economic situation to accelerate its implementation and expand it with new programmes and projects consistent with the objectives of the Plan (Ministry of Planning, 2015). Looney (1984) noted that there was a significant increase in the price of oil between 1972 and 1974, causing the GDP growth rate to jump from the planned 9.8 to 13.4. This led to a booming mega project development and But'he & Eben Saleh (2002) argue that this period of mid 1970s growth led to an accelerated urbanization process in Saudi Arabia. As old settlements were expanding, new towns were built and a boom within the basic infrastructures developed. Nevertheless, that pace of development could not cope with the main targets of the FYP, as the national health network and road construction targets were found unrealistic to implement (Ministry of Planning, 2015).

The Second Development Plan (1975-1980) was prepared under more favourable economic conditions as the Kingdom's oil revenues increased substantially due to the increase of crude oil prices in international markets. As with the First Plan, there were no financial constraints, (Ministry of Planning, 2005). The Second Development Plan (1975-1980) had a budget of nearly 187 billion USD, almost a nine-fold increase since the First Plan. The GDP by the end of the Plan in 1980 was 95.2 billion USD (excluding import duties). The national income in 1975 was 34 billion USD and grew yearly at %19 per year till the end of the plan in 1980 with an income of 67 billion USD.

Linderoth (1992) notes that OPEC countries, of which Saudi Arabia is a member, benefited from the oil crises in 1973-74 and 1978-1980. This aspect has caused great expenditures by the Saudi government and great benefits to construction companies. Looney (1984) argues that within the second FYP, construction was



the second contributor to GDP after the oil industry and that the government expenditures resulted in pushing the construction contracts as the driving force of the Saudi economy. These surges of MIPs are connected to the FYP goals. From the second to the sixth plan, there was a great focus on MIP projects. For example, in the second plan, the objective of developing infrastructure has pushed the Ministry of Transport to develop major highways consisted of total lengths of 13,000 KM. Furthermore, two new ports were developed in Jubal and Yanbu, plus an expansion to the Jeddah and Dammam ports. The goals also initiated a huge development of air infrastructure that included developing two new airports and major expansion to six existing airports. 28 dams were also constructed during the second plan.

The Third Plan's (1980-1985) objective was to accelerate the construction and completion of physical infrastructure and again to lay foundations for a more diversified economy. The government encouraged large public-sector investments in capital-intensive industries linked to the Kingdom's petroleum resources. The rapid pace of economic development required a large number of foreign workers, thus highlighting the need to develop Saudi human resources and gradually reduce reliance on expatriate labour (Ministry of Planning, 2015). Looney (1986) argues that the government's push to the private sector played a significant role in the economy, which came at the expense of increased foreign workers, which previous plans had attempted to reduce. Furthermore, additional investments in the infrastructure continued as all Saudis ports were expanded and another 124 dams were constructed.

In the Fourth Plan (1985-1990), Saudi was facing a tougher economic environment, and the government had less available revenue than during the Third Plan. The world oil markets caused government revenues to fall short. Expenditures were rapidly reduced, resulting in overall government spending declining to 20% below the Fourth Plan's target (Ministry of Planning , 2015). To

make things even worse, deficits in 1986, 1987 and 1988 were 143%, 103% and 104% respectively (Linderoth, 1992). Foreign reserves were used to lessen the impact of declining oil revenues and several projects were postponed. For example, the construction of earth-surfaced rural roads reached 64% of the Fourth Plan's target. This shortfall affected regional development objectives to open up additional agricultural areas and provide better access for the population in remote places (Ministry of Planning, 2015). Nevertheless, there have been many past investments aimed at diversifying the oil revenues, which has been a continued goal for Saudi FYPs. These investments came to fruition in the Fourth Plan and seven petrochemical plants by The Saudi Basic Industries Cooperation (SABIC) began to diversify the revenues. The development of the petrochemical plants has made the petrochemical products export rise from 217 Million USD to 2.7 billion USD. It could be argued that although investing in hydrocarbon and petrochemical sectors is beneficial in the short and mid-term, it will nevertheless cause long term problems as these diversified investments are still dependent on the oil sector, and the Saudi government's main aim in diversifying the economy is to reduce its reliance on the oil sector.

The Fifth development (1990-1995) was again facing severe financial constraints as it was witnessing the implication of the first Gulf war, in which Saudi Arabia intervened in supporting Kuwait. As the Gulf Crisis (Invasion of Kuwait by Iraq) interfered with the orderly implementation of the Fifth Plan, the government modified its expenditure priorities and the environment for the private sector changed. The Invasion of Kuwait and the subsequent outbreak of the Gulf War posed enormous organizational and financial challenges to the Saudi economy in the early years of the Fifth Plan. The enormous strain on the government finance in the first three years of the Fifth Plan caused budget deficits of a magnitude that could not be sustained. The budgetary situation was further aggravated by a decline in crude oil prices in 1993/94 to a level more than 30% below the OPEC target price that caused major projects and programmes to be put on hold

(Ministry of Transport, 2015). Although the Fifth Five-year Plan has continued to invest in its dam programmes and by the end of the Five-year Plan, Saudi totalled 183 dams.

The Sixth Plan (1995-2000) was prepared under extraordinary domestic and global conditions that prevailed in the aftermath of the Gulf War in addition to the adverse developments that took place in the world oil market in recent years. As it was noted by the ministry of planning (2015) that the average annual growth rate of government revenues was 1.2% was due to the adverse development of the international oil prices. Although government expenditure grew at 4 percent even though it had an adverse impact on the budget balance. This growth in expenditure was due to the government's commitment to insure the development of basic services and infrastructure in the face of a high population growth. The Sixth Plan hoped to realize its objectives in particular through boosting the private sector's role in diversifying the economic base and reducing dependence on oil revenues. It is also noted by the plan that key aspect is the continuing the "saudiization" through investing in enhancing human resource programs, which directed 51.5% of the FYP budget on human resource development at 57.76 billion USD (Ministry of Planning, 2015).

The Seventh Five-year Plan (2000-2004) came at a period when the Saudi government was starting to recover from the first Gulf War. As noted by the Ministry of Planning (2015), the Kingdom achieved a higher per capita income with greater employment opportunities and continued efforts to diversify the economy. Although the first Gulf War cost severe financial burdens, Saudi was not involved in the second Gulf War, and started a rise in oil prices until they hit their peak of booming oil prices in 2008, providing favourable benefits. The budget due a favourable oil market increased to USD 129.4 Billion compared to USD 112.1 billion in the sixth FYP. The favourable oil market has also caused the GDP to grow from USD 160.96 Billion in 1999 to USD 190.64 Billion in 2004.

Which was slightly higher than the targeted growth rate of 3.16% and Much higher than 1.2% growth rate of GDP achieved in the sixth plan. The seventh FYP was also successful in an average growth rate of 3.9% in the non-oil sector. Although some sectors were much successful than others. For example, the transport and communication sector had a growth rate average of 5.6% compared to the targeted 3.8% (Ministry of Planning, 2015).

The eighth FYP (2005-2009) continued to achieve positive growth rates. Although oil prices continued to rise until the middle of the fourth year of the Plan, in 2008, it was hit by a sharp decline in oil prices as the global economy suffered a financial crisis that negatively impacted its growth rate. Which has caused the average annual growth of GDP of 3.5% compared to the targeted 4.6%, yet almost equal to the growth achieved under the Seventh development plan. The GDP increased from 192.6 billion in 2004 to 228.2 billion in 2009. Major infrastructure was completed in the eight plan as large parts of main roads of about 7,482 KM were completed in the fourth year of the plan. Further, during the eight development plan an important expansion of 3,900km to the railway network was implemented. The expansion included major projects such as:

- The north-south line linking mining sites north of Riyadh passing through Jawf, Hail and Qasim regions. Along with a spur to Ras Alzour port on the Arabian Gulf.
- The “Haramain Train” project linking cities of Madinah, Makkah and Jeddah by a high-speed rail. The project aims to serve and transport pilgrims and Umrah performer between the holy places in the Kingdom.

Another project created by the eight FYP is the major expansion of the King Abdul-aziz international airport as noted earlier. The project aims to rise the airport capacity from 15 million to 80 million passengers annually. The project was completed in the ninth FYP (Ministry of Planning, 2015).

The Ninth Plan (2010-2014) as noted by the minister of planning (2015) was based on five themes: improving the standard of living and quality of life for citizens, developing national human resources and their employment, restructuring of the Saudi economy, achieving balanced development among regions, enhancing the competitiveness of the national economy and Saudi products in both the domestic and external markets, which show a great resemblance with past Five-year Plans. Major projects were completed or started in the ninth plans as investments in ports, railways and aviation infrastructure that was granted financial allocations of USD 28 billion. Such projects were:

- The Completion of King Abdul-Aziz International Airport in Jeddah.
- Constructing the Ras Al-Zour port.
- Completing the expansion of the railway network:
  - North-South Line.
  - “Al Haramain” High Speed Rail.
  - Land Bridge Project.

## 2.5 The Five-Year Plan decision process

The current decision-making process for the Five-year Plan as noted by the Saudi Ministry of Planning (2013) is divided into four stages:

- Preparation stage.
- Stage one.
- Stage two.
- Stage three.

### 2.5.1 Preparation stage:

The preparation stage of the plan determines major aspects of the plan, which

are:

- The overall objectives of the plan, policies, and implementation mechanisms,
- The methodology and future directions of the plan.

The detailed process is as follows:

- Form working groups within the Ministry of Planning.
- Form the overall objectives of the plan, policies, and implementation mechanisms.
- Determine the methodology and future directions of the plan.
- Evaluate the economic and developmental evolution during the last period.
- Conduct support studies for the preparation of the plan.
- Draft the plan preparation guide.

#### 2.5.2. Stage one

Stage one of the process focuses in creating groups from all ministries and government agencies to develop workshops and inform them of the plan goals.

the detailed process of this stage is as follows:

- Deliver the plan preparation guide to ministries and government agencies
- Form work teams in the ministries and government agencies.
- Hold meetings and workshops to explain the procedures necessary to prepare the plan for the teams working in the ministries and government agencies.
- Hold meetings between the teams in the Minister of Planning and government agencies to coordinate views on the stages of preparation,

the general objectives and mechanisms of implementation and the programs and projects needed.

### 2.5.3. Stage two

Stage two is the most complicated stage along the process of developing the FYP, it's as follow:

- Presentation of the current status from the previous development plan that includes; achievements made in the light of the plans objectives in quantitative and cumulative form and to clarify the actual credits and expenses compared with the planed funds.
- Clarify domestic and international developments affecting the work of ministries and government agencies, and poses opportunities and challenges before them, and the impact on the proposed goals and policies in the development plan.
- Evaluate each agencies performance according to specific criteria and indicators and connecting those criteria and indicators with their policies and programs.
- Illustrate the challenges and obstacles faced by the implementation of previous development plan, indicating the measures taken or proposal to address them.
- A review of what has been achieved in addressing the issues contained in the previous development plan, identification of emerging or are expected issues that would continue during the next plan, the core issues, the proposed steps to address them.
- Conduct studies and provide information and data required for the preparation of the development plan for each ministry or government agency plan.

- Analysis of the demand for services provided by the government, and it aims to assess the current and future needs in the Kingdom quantitatively.
- Showing organizational aspects, including institutional and regulatory developments in the party, or parties in other sectors that can affect the activity of an agency.
- The preparation of the general objectives of the ministry and government agency, policies and implementation mechanisms to achieve them.
- Arranging overall objectives, policies and implementation mechanisms, according to priority, giving a specific weight for each goal, with emphasis on the principle of "results-based planning" which determines the output via digital indicators that measure the extent to which the policies of the objectives have achieved, not just quantitative indicators to measure rates of project implementation. Programs and projects must be linked to the goals of the policy.
- The ministries and government agencies must submit proposals for their programs and projects enhanced with initial feasibility studies, proposals will showcase the objectives of the program or project, the cost of investment and operation, geographic location, sources of funding and the timetable for its implementation
- The distribution of programs and projects of ministries and government agencies must be based on a planning criteria that determine development priorities for every region in the country to achieve the objective of balanced development.
- Prepare a draft plan for each ministry and government agency according to a timetable.
- Attend workshops to introduce the FYP and how to use it.



#### 2.5.4 Stage three

The detailed process of stage three is as follows:

- The Ministry of Planning reviews the projects of ministries and government agencies plans and evaluate and prepare a proposal (counter proposal).
- Completion of the audit, and the agreement with the teams in the ministries and government agencies to prioritize projects.
- Preparation of operational plans for each ministry or government agency according to the model of the operational plans prepared by the ministry, and then consolidated into a coherent overall development plan.

#### 2.5.5 Considerations taken from the Five-Year Plan formation process

The Saudi decision-making process for the Five-year Plan based on the current manual provided by the Ministry of Planning, show some peculiar aspects to consider in further research such as:

- The application of most contextual studies after setting goals which may limit contextual studies scope.
- Economical directions at the early stages may leave little room for social and environmental development.
- Setting the goals and directions of the plan at the preparation stage is only conducted within the Ministry of Planning, a stage where goals and policies are drafted. This aspect may indicate an issue of stakeholder involvement. Further research should be done to identify if this aspect is considered an issue of stakeholder involvement.

- The focus on mostly quantitative studies on the plan preparation leaves may cause a little input from qualitative studies crucial in mega projects, which cannot be translated into digital indicators.

## 2.6 Summary: The institutional setup of decision making regarding Mega infrastructure projects

The chapter has highlighted the nature of MIPs that are built and showcased. They are of big budgets and the context will continue to grow, with major projects such as the Neom city that has a budget of 500 billion USD. The beginning of Section 3 looked into the macro decision process within the institutional setup of Saudi Arabia. This section came out with questions as to who has the power of approval or the effects of approval. Further, the institutional setup for decision making between the Shura Council and the Council of Ministers is still unclear, as to the process of MIP development approval.

Furthermore, the chapter notes on an important which is the connection between MIPs and Five-year Plans. This brings in the need to look at decision integration between the Council of Ministers, the Shura Council and the Ministry of Planning, as they are responsible for the FYPs.

Having introduced the main actors within the institutional structure of decision making, this chapter recommends investigating the relationship of MIP development with the Five-year Plans, Council of Ministers and the Shura Council. This triangle of interest needs to be further examined. Thus, considered a gap of knowledge that can be filled. Uncovering the realities of this institutional setup and its culture of governing MIPs provides new insight regarding MIP decision making within the Kingdom of Saudi Arabia.

# CHAPTER III

## Impacts of Mega Infrastructure Projects and its Planning and Development Considerations

### 3. Literature review

This chapter of the thesis focuses on identifying the gaps in knowledge that can be filled. To do so the chapter starts out by defining mega infrastructure projects (MIPs) in the context of the research. Secondly, the chapter explores their impact and the issues concerning budget overruns. The chapter explores the theories explaining and trying to resolve budget overruns. It further uncovers that the theories discussed were not only the reasons for budget overruns but there is also the issue of the institutional setup or the cultural aspect of management, as to how each context differs from the other and how implementing a particular management style may not work well in certain contexts. By the end of the chapter there is a focus on the importance of studying the institutional setup for decision making. The chapter then provides literature that notes the importance of such aspects in the field of mega projects. In conclusion, the chapter summarizes the reviewed literature and links to the conclusion in Chapter Two that there can be gaps to fill in the knowledge of project management, such as studying the institutional setup of decision making for MIPs within the Saudi context.

The chapter is split into eleven sections. Section 1 covers the definitions and characteristics of MIPs and which projects stretch to become MIPs. Section 2 explores the spread of MIPs and what has contributed to their boom across countries and the obsession of governments with such projects. Section 3 uncovers the impact, whether economic, social, environmental or political. Section 4 provides the reasons and the reality about MIP budget overruns through leading theories within the literature. Section 5 lists the theories that can be considered while planning MIPs and used for reducing risks of budget overrun. Section 6 explores the formative context of MIPs' birth, such as mega events, national plans or specific emerging goals. Section 7 discusses the idea of success beyond the iron triangle and that the definition of success can change from one context to another. Section 8 provides an overview of the effects of

organization and institutions on MIP development; the discussion of this aspect is carried into Section 9, wherein we look at the importance of studying the institutional setup of planning and decision making governing MIPs. Section 10 is a synopsis of the previous sections. Section 11 concludes the literature review and notes what can be considered as the gap in knowledge that this thesis tries to fill.

### 3.1 Mega infrastructure projects

Bruzelius et al (2002) defines MIPs as projects with a minimum life span of fifty years and a starting price of over one billion dollars; they hold considerable uncertainty with respect to demand forecasts and cost estimations. Eweje *et al.* (2012) adds that MIPs are programs of several projects that are strategically aligned into one very large project. Their financial and social stakes are so large they can endanger the survival of corporations and threaten the economic stability of the countries involved. Flyvbjerg *et al.* (2002) refers to MIPs as political animals that feed on a nation's resources and points out that a nation's advancement is heavily dependent on their success. In a study of the risk associated with mega-transport projects, OMEGA (2010) found that their high levels of risk have the potential to significantly impact society. Davies & Mackenzie (2014) studied the complexity of MIPs and argue they are the largest, most challenging and complex category of infrastructure projects. Batty (2003) further asserts its complexity and note that its parts become more than the whole. Zeng et al (2014) used the term major infrastructure projects (MIPs) as those of large scale engineering facilities that provide public services for economic development, social production and people's life. They further provide examples of such projects as gas pipeline projects, large scale hydropower projects, expressway networks, high speed railways and long-span bridges.

In this research, the term Mega infrastructure projects (MIPs) will address all projects of economic significance with large scale initiatives and aimed at contributing significantly towards social, political, economic and environmental development and advancement. These projects can be of soft infrastructure such as large shells of buildings, e.g., universities, or hard infrastructure such as high-speed railways.

### 3.2 Birth and spread of Mega infrastructure projects

Sturm *et al.* (1999) notes that mega-sized projects began to appear during the industrial boom of the 19<sup>th</sup> century, especially in Western countries. A number of examples of MIPs during this period can also be found in Netherlands during the period of industrial revolution where, according to Sturm *et al.* (1999), construction of national railway network began around mid 19<sup>th</sup> century, and influenced economic growth by bringing various markets together which were previously unintegrated. Söderlund *et al.* (2017) further add that the railway network developed in the Netherlands helped the modernisation process across the Western Europe and, as a result, lead to further development and advancement of capabilities to carryout MIPs. The birth of MIP coincides with modernism, and, in particular, the notion that the availability of public infrastructure is necessary to modernity. Graham and Marvin (2001) explain:

*“Evolution of science, technology, the city and their ideologies fed a belief that ‘progress’ and modernisation had to be achieved through standardised infrastructure, the immerging discipline of modern urban planning developed to take the modern infrastructure ideal granted as a central tenet, and that the modern ideal become implicated in wider practice of home based consumptions, mediated by energy, water, transport and communications grids, by this concept states and nation became so founded of the idea of providing public infrastructure monopolies within their respective territories.”*

It became clear that the more public infrastructure a nation provided the more in touch with modernity they became. Rather than treating them as mere

engineering artefacts, Dimitriou *et al.* (2013) argue that MIPs should be seen as 'organic' phenomena spreading within an environment and creating a hybrid of nature and technology that needs it's time to grow while developing.

Jia *et al* (2011), on the other hand, frames the birth of MIPs in conflict theory and argues that conflict theory, which aims to stress upon the conflicts that exist within a society and explains social change by using it, is based on the fact that society is full of conflicts and MIPs are solutions (or causes) of conflicts. Aside from being very large scale projects, MIPs also have social attributes which hold significant importance within social context, and therefore, an MIP could be the outcome of a significant conflict in a society, and vice versa. Jia *et al* (2011) explain this argument by adding:

*"A mega project has distinctive advantages to resolve the social conflicts. It has overwhelming investment, long life, and enormous social effects, and can have a far-reaching influence on the society no matter if it succeeds or not. If the economy doesn't perform well (economic conflict), the construction of a mega project can stimulate the development of relevant industries, and increase employment. China's investment of 4 trillion yuan to the construction of infrastructure in the economic crisis is a good example, which has been proved to be an efficient measure to revive the economy. If the government is not popular among citizens (political conflict), then the construction of a mega project can regain the support of the people, and that's why many local governments like to construct landmarks. If people are always bothered by nature (environment conflict), then a mega project can help them get rid of the plight."*

It is further added by Jia *et al* (2011) that MIPs resolve social conflicts because social conflicts are often around issues which affect significant proportion of a society and therefore, it yields a need for a resolution which can be in the form of an MIP. Further, an economic conflict could lead to significant MIPs aimed at stimulating economic growth. On the other hand, conflicts can also arise as a result of failed MIPs, which could cause highly negative economic impact as the investment is usually significant, this could in turn lead to conflicts in a society

either directly or through its ripple-effects on other economic sectors of the economy.

Whether born through the emergence of modernism or due to the explanation of conflict theory above, MIPs are expensive, require large amounts of financing and staffing, and are almost always governed by a long political journey, as noted by Giezen (2012). And it is for these reasons, he further adds, that most MIPs are built by the public sector through tax funds. Nevertheless, Marrewijk *et al.* (2008) argue that their wide spread is built through public and/or private funds, thus adding further complexity to their success by also having to achieve a balance between public and private goals. Harvey (2007) explains this phenomenon in terms of the new effects of Neoliberalism, which is concerned with relieving public spending in order to enhance the private sector's role within the economy through privatization and free trade in multiple economical contexts. Furthermore, Dimitriou (2009) provides a comprehensive set of principle forces, as listed below, that influence the spread of MIPs within the effects of globalization and speed of engineering, including forces such as modernisation and technological developments as discussed previously. They are as follow:

- **The 'big fix' mentality**, where development planners and political leaders alike are attracted to projects which offer a single solution to massive problems.
- **The continued need for symbols of national development**, where mega projects are interpreted as tangible expressions of national aspirations for economic and social development.
- **Technological advancements** that have facilitated the implementation of projects previous technologies could not before deliver.



- **An enhanced global institutional capacity** developed by global corporations affecting the attitudes of government decision-makers as to the size of projects, encouraging larger projects to be built.
- **An increased inter-dependency of mega projects** where they form part of an economic and technological system whose optimum efficiency is deemed achievable *only* if complimented by another mega project investment.
- **An enhanced global financial network** of banks and entrepreneurs, facilitated by global IT arrangements capable of moving funds from one part of the earth to another.

Of the five forces that were noted by Dimitriou (2009), three showcase relevance to the pervious literature mentioned above that argued on the spread of MIPs. The 'big fix' mentality, where projects are created as solutions to major projects, aligns with Jia et al.'s (2011) argument that MIPs can be seen as conflict solutions. The continued need for symbols of national development as triggers for MIP development is asserted in Graham and Marvin's (2001) view that major projects are sometimes made to showcase modernity and development prestige. The third force which forms the basis for the spread of MIPs is technological advancement that can be rooted back in the 19<sup>th</sup> century. As Sturm et al. (1999) noted, the industrial revolution helped create more mega projects, while Dimitriou (2009) further notes that with the rapid advancement of technologies MIPs will continue to flourish.

### 3.3 Impacts of Mega infrastructure projects

Due to their variety, high number of users and long-life span, MIPs greatly impact their social, political, environmental and economic contexts. These aspects will

be discussed below in detail, with the aim of understanding the impacts of MIPs from a social, political, environmental or economic impact.

### 3.3.1 Economic impacts

Winch (2013) notes that the modern economy was shaped by major projects through the provided infrastructure that enabled the economic development and creation of a healthier economic environment. Aschauer (1989) further adds that the development of highways, airports, mass transit etc. strongly impacts economic growth and raises productivity. Short & Kopp, (2005) argues that because it structures space and determines mobility, influencing trade flows, and industrial and residence locations, transport infrastructure is a vital social and economic asset. Mun and Nakagawa (2010) asserts with these views as they further add Mega transportation projects help connect economic national and regional goals through integration of the many parts of the country. Furthermore, Yu and Kwon (2011) argues that urban regeneration projects foster the wellbeing of a city by bringing lasting economic improvements to an urban area. MIPs also help create a great investment vantage and prepare cities to compete in the global market. Paul (2004) argues that mega urban transport projects provide a city with a global competitive advantage. Thynell et al. (2010) note that transport MIPs contribute to a city's competitiveness in both national and international contexts. Bornstein (2010) further explains that city building needs projects of major scale from museums, stadiums or a high-speed rail, and is a necessity for placing a city on the world map. The developments of large scale projects are effective in attracting investments, visitors, and jobs. Herranz-Lonca (2007) conducted a study regarding the Spanish infrastructure from 1845 till 1935. He aimed to estimate a vector autoregressive (VAR) system that would allow him to analyse relationships between economic growth and infrastructure investments. His analysis concluded a clear positive impact on Spain's economic growth due to local scope infrastructure investments, although he notes that investments in nationwide networks were not significantly different from zero.

Jia *et al.* (2011) provide an example of an MIP's economic impact within an Asian context and how it became a safety valve for the economy of Taiwan. In 1978, Taiwan was expelled from the United Nations while facing the first oil crisis and a poor economic environment that was leading the nation into extreme poverty. Its leader at that time was Chiang Ching-kuo, who battled the political opposition and insisted to borrow large amounts from other countries while enduring great internal and external conflicts. The reason was to start the government vision of "ten major construction projects" which they believe was fundamental to cause the major economical improvements for Taiwan. And so it did as it became the solid foundation for the economic boom of the country and was marked by history as the revival of the Taiwan economy.

Rothengatter (2000) in the context of Germany studied the impact of infrastructure investments in regional economic growth throughout Germany. Part of his research was to uncover the "beneficial spatial effects" created by infrastructure investments; "beneficial spatial effects" were based on four criteria: employment effects related to the operation of new infrastructure, employment effects during the construction period, improvements to international exchange and benefits from improved spatial situation. The beneficial spatial effects when converted into monetary terms showed that the benefits due to large scale infrastructure projects were positive, at 13.5 %. Nevertheless Flyvbjerg (2016) notes that a single failed mega project with a high over budget can impact countries with fragile economics. Cause negative impacts on the national economy. Ansar et al (2014) examples the Tarbela dam over budget in Pakistan. As the project caused a 23% increase of its external public debt stock between its construction period in 1968 to 1984 which costed four times its initial budget. Ansar et al (2014) further notes that the Chivor dam also caused Columbia a 12% increase of its external public debt during its constriction period between 1970 and 1977.

### 3.3.2 Socio-Cultural

Hall (1980) shows that the Sydney opera house significantly impacted the culture of the city and placed Sydney on the cultural map of the world. Zeng et al. (2014) argues that MIPs impact on the social context is dominant and visible, and in any form they are produced in, they will always carry or bare social attributes.

Although they further add that the social impact will vary from one project to another and that through the project lifecycle and the project planners must reflect on their responsibilities to the wider society. As noted earlier, Jia et al. (2011) argue that MIPs impact society because they are born out of social conflicts. For that reason, MIPs are effective tools for solving social conflicts. On the other hand, MIPs may cause social conflicts instead of solving them in the first place and eventually lead to further MIPs. Silvestre (2009) notes as an example which is the Barcelona Olympic Village within Poblenou District. The Poblenou district was an old industrial site which was invested in to become a new home for middle and upper-class society and so it did. Nevertheless, it affected the original inhabitants of former working class with their small business as they were evicted and forced to migrate to other parts of the city.

Furthermore, the adjoining poor areas were also affected causing economical pressure on them by rising rent prices on them and the local costs of living. Forcing them to also relocate due to the new economic climate. So, although the project itself was successful by improving the district, it socially harmed the lower-class citizens. Zeng et al (2014) further adds to this aspect, that within the Chinese context several MIPs has caused issues such as regional disparity, social equity, ecological balance and social stability. He argues within the Chinese context there has been migrations of 160 million people due to water infrastructure projects within the last decades. Due to government behaviours that does not take into respect the lack of public adaptability to such projects within residential areas. This issue rises the need of appropriate resettlement compensation and settlement policies to reduce the effects of negative social impacts of MIPs

Considering the social aspect of MIPs, Rietveld (1994) argues that transport mega projects are developed not only for efficiency maximization, but are also influenced by cultural and value differences and that their issues vary from one context to another. Rietveld (1994) further explain that societies have rules (formal/ informal) that define behaviour for institutions such as property rights, provision of infrastructure (private versus public), management practices, governance, the role of markets etc., and different countries will approach problems differently.

Altshuler & Luberoff (2003) note that transport MIPs are continuously pushing society to connect and that the modern society cannot live without them. They further argue that mega projects such as urban redevelopment which replaced populated slums showed positive outcomes. However, Jordhus-Lier (2014) presents mega urban redevelopments as “dressing up for the world” projects that force large numbers of poor people to relocate. Strauch et al. (2014) argues that there is a connection between mega projects and spatial fragmentation. They explain that projects based on urban interventions that target specific areas in a city can cause if detached from an overall plan, deep spatial fragmentations. Project-based city interventions will downscale urban policies, creating an institutional structure characterised by power geometries rather than a traditional practice of government.

Westhuizen (2008) argues that the Gautrain mega project in South Africa provided a great impact on the social context. As he notes that the Gautrain project in South Africa, a high-speed metropolitan transport network that was justified as a way of reducing congestion in the industrial and premier business region. The project was consisted of two lines. Although all rail network prior was used by poor and working class, the Gautrain was aiming at the middle and affluent classes as almost all Gautrain stations are located in upmarket suburbs.

The low number of passengers coupled with the soaring costs makes a case of social injustice. Westhuizen (2008) argues on this aspect as Gautrain give a symbol of class-based exclusion that was masked by affluence and modernity. As it essentially a ride for the suburban middle class that makes it very hard to justify its price as a solution to congestions with its relatively few passengers.

### 3.3.3 Environmental

MIPs are tools that have been used to offer a more sustainable future for the environment. Some of these types of projects are done when too many MIPs of pro-economic impacts start to cause negative environmental impacts over time. For example, Maxwell et al. (1997) noted that the La Grande Dam was built for Hydro-Quebec and became one of the lowest-cost suppliers of power in North America, but caused serious environmental problems such as mercury poisoning, which resulted in serious consequences for the fragile ecosystems of the area. As a further example, Ansar et al (2014) noted that China's Three Gorges Dam will further cost 26.45 billion USD in environmental mitigation efforts.

Zeng *et al* (2014) argue that consideration for environment by MIPs is a part of social responsibility for the organizations leading such projects, and it is imperative each step of project life cycle reflects the organisations commitments in terms of mitigating any negative impacts on wider society, including environment. They use construction MIPs as examples of project which often lead to habitat fragmentation which, as a result, leads to loss in biodiversity and ecosystem services. Three Gorges Dam in China, mentioned above, is an example of such an MIP which has caused negative environmental impact, when its reserves are filled up, by submerging over 500 rare species of terraneous plant. Another example of such negative impact is associated with the now-paused railway project between Qinghar and Tibet in China, which has severely impacted breeding among population of 1,500 antelopes and has even forced this population to migrate from its original area (Zeng *et al*, 2014). These examples

underline how, if not mitigated for, MIPs can have damaging and lasting impacts on the environment.

Qdais (2008) further add that desalination plants are associated with negative environmental impact of emissions that affect the marine environment. He explains the risk of a planned desalination plant project within the Gulf of Aqaba in the Middle East:

*“...During the operation phase, intake of water directly from the sea usually results in loss of marine species as a result of impingement and entrainment. Impingement is when species collide with screens at the intake; entrainment occurs when species are taken into the plant with the feed- water and killed during plant processes. Other main impacts during the operation are the noise that will be associated with pumps and the spillage of oil and grease that will be used for the operation and maintenance of the pumps. Unless mitigation measures are put in place, the fragile environment of the gulf will be adversely affected.”*

Nevertheless, Marrewijk et al., (2008) note that the North Side Tunnel Project (NSTP) in Sydney, Australia, offers an example of how a MIP can have a positive environmental impact. The project aimed to address Sydney Harbour’s pollution problems before the 2000 Sydney Olympics. The project reduces effects of severe rain events by carrying storm water and raw sewage to a coastal sewerage pump station for pumping it, after treatment, to the sea. The project was greatly successful at reducing high levels of pollution before the 2000 Sydney Olympics.

#### 3.3.4 Political impact

Beck (1999) noted that MIPs played a central role in the Western industrial boom and that those MIPs aided the stability of its democratic structure (Political impact) while benefiting its economic growth. This was achieved by individual struggle or between parties for power and privileges. Hall (1980) points out examples of political MIPs, such as the Concorde project and the Sydney Opera

House. While the Sydney Opera House showcased Sydney to the world through its architectural wonder, the Concorde strengthened the political image of UK as a strong, technically-advanced country.

Dimitriou *et al.* (2013) argue that political influence is an important aspect for mega projects materialisation and success, and planners need to take account of political influence/support during the project lifecycle. Morris (2013) details one of the best examples of political MIPs, when, on April 1961, the USSR launched the first man, Yuri Gagarin, into space. A mega project developed by the Russians during the Cold War era, the project was considered a great political achievement that wounded the American prestige. He further explains that it spawned several MIPs in response to each other as President Kennedy quickly responded with Apollo 11, a project representing the American commitment to achieving a goal as quickly as possible, landing on the Moon and returning safely to Earth.

Nevertheless, some political projects end with negative outcomes. Jia et al. (2011) cite the example of the Manhattan project as a political project that ended up with severe consequences. They argue that the project succeeded in creating the atomic bomb, which ended the Second World War quickly and led to the Japanese surrender, a good resolution at that time. But the eventual consequences have been among the most severe in human history, and the authors note the three main issues that were created:

- Stimulating the arms race worldwide.
- Making humans live in the shadow of nuclear terror.
- The nuclear storehouses of the world can destroy Earth a dozen times over.



### 3.4 Realities of Mega infrastructure projects: Budgeting issues

MIPs make great impacts and therefore should be planned and designed on a rational basis. They are constantly developed for political, economic, social or environmental reasons. Yet despite their growing prevalence, MIPs whether through public or private/public partnerships, often fail to meet cost estimations, project objectives and time schedules (Marrewijk *et al.*, 2008). Cost escalations within MIPs happen in almost nine out of ten projects, with an average cost increase of 28 percent (Giezen, 2012). Flyvbjerg (2002) adds that cost overruns of 50 to 100% in fixed prices are common for MIPs. It is to be noted that with different projects as case studies the percentage of cost escalations may differ from one reference to another but it can be argued that it shows a pattern of budget overruns when developing mega projects.

Zeng *et al.* (2014) further add that the large, unique and complex nature of MIPs makes it easy to hide and inflate additional expenditure and complicate the tracing of payments and the diffusion of standards and practices.

This extreme behaviour of budget overruns and lower effectiveness leads to questions about the rationale and the sustainability of MIPs (Altshuler & Luberoft, 2003). Multiple theories have emerged regarding these issues, which will be explored with the aim of uncovering some of the root issues underlying MIPs' high cost overruns.

Several theories in the literature attempt to explain MIPs frequent budget overruns, low levels of intended effectiveness and time schedule delays. Five theories showed relation to the context of study (decisions making/appraisal stage). These theories are: escalation of commitment (Bazerman *et. al*, 1984), strategic misrepresentation (Flyvbjerg, 2001), optimism bias (Kutsch *et al.*, 2011), technological sublime (Giezen, 2012), and scope change (Altshuler and Luberoft, 2003).

### 3.4.1 Escalation of commitment

Bazerman et. al, (1984) argues that *escalation of commitment* occurs when decision-making groups or individual decision makers attempt to justify a decision that will facilitate negative outcomes. They further add that escalation might be due to the failure to ignore irrelevant historical information and past outcomes that cannot be changed. Maxwell *et al*, (1997) adds that large organizations often escalate their commitments to mega-project development, even after evidence of negative environmental impacts or lack of economic feasibility. They add that there are several examples of such projects that include nuclear projects in the United States, the Three Gorges Dam in China, and transport projects like the Channel tunnel and the Concorde project. They further argue that the root causes of the escalation of commitment are due to: the desire not to waste resources, interpersonal competition, political vulnerability and self-justification.

Whyte (1993) added that when politicians are in a position that makes them personally responsible for their proposed project, they may decide to increase the investment of resources, believing that if the project is delivered, their action will be justified. Staw (1976) noted that this aspect is not exclusive to Western countries, and it will occur in different decision-making contexts, a process of escalation that cause additional time, effort, and resources to an unsatisfactory proposed MIP. An example of escalation of commitment is the High speed 2. Mateos and Givoni (2012) argue that the HS2 idea was growing after completion of the HS1 or the Channel Tunnel Rail link. As they note, after the completion of HS1 a political consensus started to grow to further develop a high-speed network such as the HS2, although a major study for the Prime Minister regarding the UK transport system ruled out the need for development and investments in an HSR line or network. It could be seen thus as an escalation of commitment to an HSR network in the UK, that was started by the HS1.

Furthermore, Mateos and Givoni (2012) note that although the preliminary analysis of the impact of HS2 will provide details of wider economic impact such as employment benefits, for these to actually take place there is a need of improved acceptability. As they suggest, it will face issues of accessibility that it could cause for cities close to it. They further add that to succeed it has to ensure that accessibility benefits are spread regionally and that any new HSR line must be planned with the consideration of the “current alignment of the conventional network”. As with the current plan for HS2, it will make cities closer to London seem farther and further encourage car transport.

Nevertheless, Preston (2012) adds that the HS2 will provide conventional transport user benefits, time savings and reduced overcrowding. He further adds that HSR is a technology whose time has come and must be implemented in the UK.

While not an infrastructure project, Hall (1980) uses the Concorde project as an example of the escalation of commitment dilemma. The Concorde project was initially developed within the context of UK. It was a mega project born and pushed through excessive lobbying from parties with their own specific goals. The project cost France and Britain severe losses to taxpayer money. It began in 1956 when the Ministry of Supply set a supersonic committee consisting of: The Ministry of Supply, Civil aviation and transport, aircraft manufactures and engine firms, plus airline corporations excluding the treasury. Before a full design could be commissioned, the supersonic committee issued a budget of £700,000 for a basic research study. Nevertheless, the enthusiasm of the committee members could be explained by the fact that the private sector needed a project of this sort to stabilize jobs through profits within the aviation sector, and politicians wanted to deliver something prestigious. Absence of the treasury in the committees of the project was important as they would have made it uneasy,

especially at the start of the project. Eventually, the treasury got involved and criticized the project.

Hall (1980) further explains that although the project continued through excessive lobbying until 1962, the project studies concluded that the project would have an estimated cost of 150-170 million pounds. The project faced a battle at the end estimate, especially from the treasury. But the Ministry of Supply and Aviation were constantly defending the Concorde project in a way that can be described as an escalation of commitment.

The escalation of commitment theory comes from the idea of escalating commitments to mega-project development, even after evidence of negative or lack of economic feasibility. Hall (1980) notes how, considering the odds facing the project and fears of its cancellation, was saved by signing a contract with the French government as a way to split costs to meet the criticism of the project's high budgetary requirement. By signing the contract, they would shield the project from any possibility of having to end it within the UK government. The signing of such a contract escalated the project to an international political arena, making it very difficult to cancel such a project. The project later cost almost 2 billion pounds and only sold 14 aircraft. It became a total loss and eventually reached a stage where it became impossible even to recoup the invested money, let alone earning profits.

#### 3.4.2 Strategic misrepresentation

According to Flyvbjerg et al (2002), *strategic misrepresentation* occurs when projects are misrepresented in the decision-making process. MIPs that are "green lighted" through this process tend to exceed their estimations in terms of time, budget and even effectiveness, due to the fact that the formation process was done through falsified figures of budget and forecasts. Flyvbjerg (2001) explains that this is due to a complicated relationship between power and

rationality as power defines what gets to count as knowledge, and power also has the tendency to overcome rationality; thus, at some point, wrong project indicators are used instead.

Marrewijk *et al.* (2008) take a view of strategic misrepresentation that is an alternative to Flyvbjerg views. They explain:

*“Projects routinely exceed estimates of their risk in terms of costs, completion, and other performance indicators because those associated with their commissioning and implementation will use deceptive indicators and misleading projections resulting in the misallocation of scarce resources? While the first half of the proposition is valid, it does not follow that the second half is also true. If it were, then it would implicate a whole profession of project management, as well as all the ancillary professions associated with it, in a massive conspiracy against the public interest. Additionally, it would imply that government ministers and their public service advisers, as well as merchant bankers and shareholders, were also either duplicitous or, at the very least, stupid.”*

While Flyvbjerg (2001) claims that MIPs are motivated by vested interests, Marrewijk *et al.* (2008) believe that project design (including contractual arrangements) and project culture also play an important role at the same time. They argue that different management cultures when mixed up in big projects create issues that may cause budget overruns. They provide the example of the Environ Megaproject, and point out that many of the workforce came from different cultural backgrounds of management. This caused several issues such as knowledge transfer, communication and cooperation, leading to slow or ineffective decision making. These issues could have contributed to the cost overruns of the Environ Megaproject.

Winch (2013) argued on cost overruns of major projects and comes in agreement with Flyvbjerg (2001) and believes that vested interests cannot be ignored. He bases his assumption on the Channel Tunnel fixed link project. He notes that there were budget and schedule manipulations such as a £150m budget line for

cooling in the channel tunnel, which was removed during negotiations even though people involved with the project knew in full knowledge that it would have to be put back in. Such manipulations are tactics to ease negotiations with the banks to reduce the overall length of a project.

### 3.4.3. Optimism bias

Kutsch et al., (2011) argues that *optimism bias* is a psychological bias that subconsciously introduces optimism into a project's initial forecasts. This unconscious act raises the possibility of success in the appraisal of projects through forecasts and budgets. Flyvbjerg (2008) notes a systematic fallacy in planning and decision-making in which people underestimate the costs, completion times, and risks of planned actions, while overestimate the benefits.

Flyvbjerg (2008) illustrates the effects of optimum bias on transport MIPs by noting that the average inaccuracy for rail passenger forecasts is 51.4%, with 84% of all rail projects incorrect by more than 20%. This is equivalent to an average overestimation in rail passenger forecasts of 106%. For roads, the average inaccuracy in traffic forecasts is 9.5%, with half of all road forecasts wrong by more than 20%. He further concludes that within the 30-year period for which demand data was available, accuracy in rail and road traffic forecasts has not improved due to optimum bias and strategic misrepresentation.

Flyvbjerg and Cowi (2004) explain that cost overrun based on optimism bias could be caused by a combination of how the decision-making process is organized and strategic behaviour of actors involved in the planning and decision-making processes. Cantarelli et al (2010) list the causes of optimism bias based on a wide literature review as seen in table 3.1:

**Table 3.1 Causes of optimism bias****Source: Cantarelli et al (2010)**

Explanation	Causes
Technical	Forecasting errors including price raises, poor -project design, and incomplete estimations of scope changes Uncertainty Inappropriate organizational structure Inadequate decision-making process Inadequate planning process
Economical	Deliberate underestimation due to: - Sack of incentives, - Lack of resources, - Inefficient use of resources, - Dedicated funding process, - Poor financing / contract management, - Strategic behaviour
Psychological	Optimism bias among local officials Cognitive bias Cautious attitudes towards risk
Political	Deliberate cost underestimation Manipulation of forecasts Private information

#### 3.4.4 Technological sublime

*Technological sublime* theory follows the idea that people have a fixation for the latest technology. This theory emphasizes MIPs in terms of new technology, aesthetics and other novelties, which attract politicians and engineers. Furthermore, Flyvbjerg (2017) notes that technological sublime within mega projects is a term used to describe the fixations of engineers and technologists on applying innovative and new technology into projects that pushes the boundaries. For example, it could be the fixations of building the longest bridge or the tallest building or the largest wind turbine. Giezen (2012) points out that although projects and solutions employing new technology can be attractive, the

uncertainty and expense are high. Hall (1980) argues that evidence of the technological innovations can be seen through projects that attract great political legacies or innovative engineering marvels designed to advance modernity. Davies and Mackenzie (2014) further adds that internal sources of uncertainty for projects are mostly associated with new technology.

(Marrewijk, 2007) notes that the Environ Megaproject provides an example of how the technological sublime impacts the likelihood an MIP will go over budget *if not managed carefully*. As it used untested technologies for a large number of fly-overs, tunnels and bridges. Facing major technological complexities such as digging tunnels in unstable clay, building bridges over wide rivers, stabilizing swampy grounds and reducing major environmental impact within dense populated areas. It involved a mix of participants and industries that caused a major issue that is splitting it into simplified parts.

In another example of the technological sublime, the OMEGA case study projects found that MIPs that were characterized by untested technological solutions caused time schedule delays and budget overruns. For example, the Øresund Link was 39% over budget, the Perth–Mandurah Railway was 12% over budget, the JLE was 42% over budget and the Big Dig was 155% over budget. These projects involved new and untested technology for the sake of innovation, and the high budgetary and time issues were the price of innovation (Dimitriou *et al.* 2013). This highlights the fact that these projects did not incorporate plans to mitigate the potential negative impacts on innovation, i.e. trial of untested and unproven technology in large-scale projects.

Dimitriou *et al.* (2013) further details issues of innovation to over budget MIPs:

*“Of the OMEGA case study projects, 40% were characterised by some form of ‘novel’, untried or untested technological solutions. For example, the Øresund*



*Link, Rion-Antirion Bridge, Perth–Mandurah Railway, C2 Shinjuku Route, JLE, Big Dig and Hong Kong Airport Railway, all involved technological innovations. The Øresund link was engineered to have minimal impact on water flow; the Rion-Antirion Bridge was built to withstand high levels of seismic activity; the Perth–Mandurah Railway had to overcome complex ground conditions; and the Shinjuku Route and Big Dig projects developed a number of new technologies to allow sections of the routes to be constructed as tunnels”*

Efthymiou (2015) notes on this aspect and the risks of new innovations in mega projects. He exemplifies Shell’s flagship project Prelude FLNG in which it adopted existing technologies to mitigate risks. He argues that the project insured as much as possible to use mostly proven and tested systems and component. Although Efthymiou (2017) notes that the Prelude project used new technologies on some aspect of project but he argues such new innovations were recognized early in the project lifecycle.

Nevertheless, Gill (2012) argues that abandoning new technology to proven technologies to reduce uncertainty and mitigate risks will limit innovation. He believes that investors and stakeholders must be open to new technology but also anticipate the difficulties early on and persuade a bargain because MIPs generate desirable technological spillovers, economic growth and a road to modernization.

#### 3.4.5 Scope change

Giezen (2012) notes that the complexities inherent in MIPs make them vulnerable to planning changes. Changes that may sometimes occur will impact the project’s program scope. Whether technical or a mitigation of environmental aspects, these changes are called *scope change*. The author exemplifies the Holland Tunnel circa 1919, in which the initial estimate for the project was 12 million USD. In the course of its seven-year period of construction the cost of the project jumped to 48.4 million USD. Giezen (2012) argues that the rise in cost was linked to scope changes due to political volatility. As he notes:

*“Eventually, when finished seven years later, the tunnel had cost \$48.4 million of which about \$15 million could be attributed to functional and aesthetic factors. An important factor in scope creep is political volatility. During the process, different politicians in influential positions will have shifting demands. Thus the political and social playing field is very important in this respect”*

Shane (2009) notes that there are external scope changes and internal scope changes. *External scope changes* are not controllable by the owner and can lead to underestimation of project cost escalation. They include local concerns and requirements, effects of inflation, changing market conditions or unforeseen events and conditions. *Internal scope changes* are those that are controlled by the agent/ owner management. Such changes may include bias, delivery/procurement approaches, project schedule changes, engineering and construction complexities, poor estimating, inconsistent application of contingencies, faulty execution, ambiguous contract provisions, and contract document conflicts.

Altshuler and Luberoff (2003) further add that MIPs are attracted to scope change due to the “do no harm” era. The “do no harm” era was the emerging concerns of MIPs impact on social and environmental aspect. When started in the 1950s that insured major project would consider social and environmental impacts in a way that would not cause such harms. Thus, scope changes for major projects to include further benefits such as social, emerged as a way to avoid total gridlock for MIPs during the 1950s and early 1960s. The essence of this paradigm was that MIPs would aim to cause no harm. They further argue that mitigation strategies caused scope changes that increased budgetary requirements, and are starting to raise serious questions about the sustainability of MIP investments.

### 3.5 Theories of decision making process

This section of the chapter provides an overview of theories that aim to improve the budgetary and effectiveness issues regarding MIPs.

#### 3.5.1 Value management

The idea to form a value of a mega project and its effects on the value of the intended context is of great importance in the decision-making process.

Considering that mega projects are sunk cost and irreversible, its highly important to conduct a critical planning stage where all consideration must be taken in. Morris (2013) argued that with mega project continuing low success rate, more planning approaches should be tested. He argued that with macro project, Value must be understood and then each project/alternative is tasted to address the strategic questions of whether the project should be done or not, and whether the projects development strategy could be improved. He refers to this process as Value management (VM). Lester *et al* (2014) further adds that VM is mainly concerned with the strategic question of 'what' should or could be done to improve performance of strategic goals.

Too and Weaver (2014) further add in regard to the definition of value and the importance of value creation as the foundation of a progressive economic strategy. They noted that value occurs for major projects when the benefits of a certain project exceed the input costs and the overall strategy of the organization.

Lepak *et al.* (2007) argue that projects failing strategically is due to the abandonment of important values that were initially intended. Which they captioned it as "value slippage". They argue that slippage provides little incentive for creating value in the long term.

Morris (2013) exemplified the endorsement of (VM) to the decision making of major project by noting that in 2008, the UK began requiring that all major projects include estimates of whole life costs after 10 years' operation. Although he argued that this is a small endorsement of (VM) but is considered a start that must be further developed.

### 3.5.2 Scenario planning

Bartholomew (2005) defines Scenario planning as:

*“A process that uses scenarios to assess the future – a “scenario planning” process – utilises a series of scenarios to gauge possible future conditions. The expectation is that through the process of conceiving, crafting, and evaluating a series of scenarios, an appropriate course, or series of courses, of action can be identified. Hence, through this process, the wide-open question of what the future might bring can be narrowed down to a more manageable set of possibilities”*

Benedict (2017) notes that scenario planning started being implemented by Royal Dutch Shell almost forty years ago. It later appeared on many areas as it aimed to predict future possibilities that form or improve plans and policies. He further adds that it is considered an organizational learning tool, as organizations learn about their context. He argues that policy makers must arm themselves with such a tool to overcome the major uncertainties of their context.

Derbyshire and Wright (2017) noted that whether Scenario planning is used for business or government organizations it will broaden and challenge the decision-makers' perspectives, giving them the ability to reconsider the standard 'business-as-usual' assumption. They further add based on reviewing the literature they came up with three main objectives of scenario planning which are:

- enhance the understanding of the causal processes, connections and logical sequences underlying events;
- reframe perceptions and change the mind-sets of those within organizations;
- improve decision-making, so as to inform strategy development.

Zanni *et al* (2017) noted not only scenario planning help decision makers avoid expensive mistakes or costly retrofits it also provides a foundation of a wide stakeholder involvement. This aspect as they argue offers the opportunity to avoid gridlocks that is usually associated with decision making for MIPs, reducing risks of legal or extra-legal and popular resistance and saving a great sum of expense and major delays.

The Delawere Valley Regional Planning Commission (2014) further explains scenario planning as a way of uncovering several forces of change. They note that scenario planning is used to predicts social, technological, environmental, economic and political effects of changes that would transform the future. For example, shifting lifestyle preference of millennials, climate change, autonomous vehicles, cheap or volatile energy. By uncovering such effects, scenario planning helps to prepare and adapt to them. Scenario planning also identifies major projects that are considered regional game changers such as high-speed rail projects.

### 3.5.3 Problem theory

Priemus (2010) adopted Problem theory to MIP decision making as he frames MIPs in conflict theory and born as a solution to a certain problem. Conflict theory was noted earlier in section 3.2 of this chapter. Priemus (2010) notes that pitfalls in decision-making on MIPs are due to absence of a problem analysis. He argues that an MIP is at best a solution and that a proper problem analysis is

essential to determining whether a proposed project is effective, efficient and legitimate or not. He further explains:

*“The first question that should be asked is: what is or what are the problem(s)? And then: what is the problem now and what is it likely to become in the short and the long term? And finally, who is affected by the problem? One player’s problem might be another player’s solution. Players often perceive problems differently. It is essential to conduct both a problem analysis and to reach the strongest possible consensus.”*

The argument is that problem theory will provide the values that are needed to be achieved. Values are considered solutions to the problems that are faced by a certain context.

Priemus (2008) adds that a shared problem analysis should be conducted by several stakeholders to enhance the possibility that the selected alternative will still be endorsed by everyone further down the line and survive changes in government. If there is still a difference of opinion on the analysis, it is usually the authorized political body (parliament, regional or municipal council) that decides on the problem’s best solution. He further notes that decision-making about MIPs is not usually linear and that sometimes a problem analysis has to be reformulated at a later date. He introduces a system analysis methodology for MIP decision-making that frames them as a solution to a problem. A system analysis starts with a detailed problem analysis that leads to an appraisal of alternatives that can cope with the problem identified.

Dimitriou et al, (2013) argue that employing Priemus (2008) problem analysis frameworks for MIPs, at the earliest stage, as early as the conception stage will give the ability to resolve the main problems that a megaproject is intended to solve.

#### 3.5.4 Collective intelligence theory:

Another theory that can improve the decision-making process for MIPs is collective intelligence theory. The theory is based on Surowiecki (2004) argument that groups of people always have a better chance of making better decisions than a smarter individual. He frames the need for and importance of a larger stakeholder participation in decision-making through the wisdom of crowds. Dimitriou (2006) noted Surowiecki's (2004) premise that large groups of people are smarter than a few experts. He adds that if true, collective intelligence can impact how we run governments, societies and cities and how we plan for the future.

Surowiecki (2004) stated that the wisdom of crowds can be adopted in decision-making through the idea of collective intelligence. Collective intelligence aims to deliver the input of wise crowds into decision-making through the availability of:

##### *3.5.4.1 Diversity of opinion*

Each person has some information that is privately acquired and which others do not have. Diversity promotes robust forecasts and makes better decisions than a solitary skilled decision maker. It adds perspective and weakens destructive characteristics of group decision-making. The premise is forming a decision group of diverse people with varying degrees of knowledge are more effective than a group of uniformed knowledge or different experts assembled of few people. Diversity will not only benefit by adding different perspectives to the group, but also ease for the individuals to say what they really think.

##### *3.5.4.2 Independence*

Providing freedom from the influence of others while not entering into isolation, a successful group decision involves getting people to pay less attention to what other people are saying. Independence of opinion is both a crucial ingredient in

collectively wise decisions and one of the hardest aspects to keep intact. The importance of independence is based in two aspects:

- Breaking the relationship of connection and influencing each other and preventing any errors in individual judgment but to wreck the groups collective judgment.
- New information is more likely captured from independent individuals than old data that is familiar with the group.

#### *3.5.4.3 Decentralization*

Independence is greatly encouraged by decentralization and providing specialization while allowing people to coordinate activities and solve problems. Although it has a weakness that valuable information uncovered in one part of the system might not find its way to the rest of the system, risking valuable information to get dismissed, decentralization is also a great way to gather tacit knowledge. It delivers important decisions made up of individuals with their own local and specific knowledge that a far-seeing planner might miss.

#### *3.5.4.4 Aggregation*

Including a mechanism for turning private judgments into collective knowledge requires ensuring no problems in coordination and cooperation. Cooperation problems are very important to fix as they arrange self-interested and distrustful people together, even when the self-interest try to dictate that no individual should be included. Paying taxes, agreeing on what counts as reasonable pay and dealing with pollution are examples of cooperation of problems.

Lastly on collective intelligence Surowiecki (2004) adds a very important aspect about employing his theory:



*“There is no point in making small groups part of leadership structure if you do not give the group a method of aggregating the opinions of its members. If small groups are included in the decision-making process, then they should be allowed to make decisions. If an organization sets up a team and then uses them for purely advisory purposes, it loses the true advantage that a team has; namely collective wisdom.”*

### 3.5.5 Contingency theory

The previous two theories focused on agenda and principle of decision making for mega projects. While contingency theory on the other hand is mostly related to context awareness. Puddicombe (2011) notes that contingency theory is concerned with the fit between an organization’s contingencies and its actions. Ganescu (2012) further adds that contingency theory can be explained in various ways:

- Optimum management or organization is subject to various internal and external constraints.
- The best way of organizing depends on the environment the organization operates in.
- The effectiveness of the solution depends on the conditions under which the solution is implemented.

The Oxford Handbook of Project Management (2012) explains contingency theory as:

*“Contingency theory implies that the flow of projects and their dynamics are in constant change. Which are due to characteristics deference’s on one hand and being developed within other institutional contexts on the other hand.”*

These definitions make it clear that projects are affected by the context they are developed in, as each organizational structure might be different from another due to contingency variables. Morton and Hu (2008) note that the performance of an organization is dependent upon the fit between organizational structure and contingencies. Puddicombe (2011) aligns with Morton and Hu (2008) and

notes that organizational effectiveness results from this fit and there should be concern with the fit between an organization's contingencies and its actions.

Morton and Hu (2008) state that three main elements form the core paradigm of structural contingency theory:

1. There is an association between contingency and the organizational structure.
2. Contingency impacts the organizational structure.
3. There is a fit of the structural variable to each level of the contingency, where high fit leads to effectiveness and low fit leads to ineffectiveness.

Ginsberg and Venkatrama (1985) note four major links of contingency relationships that must be identified to improve the strategic plans of a project:

1. Indicating the influence of external environment on strategy.
2. Illustrating the influence of organizational variables on the formulation of strategy.
3. Highlighting the influence of performance variables on the formulation of strategy.
4. Depicting the influence of the chosen strategy on organizational arrangements such as structure, systems, and style.

Thus, one has to understand the importance of context as each context has its own variables that affect the flow of the organizational work. It is important for the researcher when studying the Five-year Plan decision-making process in Saudi to uncover the main contingencies affecting the Five-year Plan. This can be exposed by examining the decision-making process on formulating the national

plan and the external and internal effects that impact the implantations of the Five-year Plan.

Informed by these views, the next section of this literature review will discuss the effect of context as variable contingences on the MIP decision-making process. The focus will be on the context of the projects themselves as some MIPs have different characteristics than others and the context of the organizational flow or institutional frameworks that the MIP is being developed within.

### 3.6 The formation context of Mega infrastructure projects

This section of the literature review organizes MIPs into categories based on their formation characteristics and effect on decision-making.

MIPs formation characteristics play a key role in its decision-making process. To understand their nature in the aim of further improvements to the decision-making process, one has to understand the formation process. MIPs are usually born from: **mega events**, **national development plans** or **specific emerging goals**.

#### 3.6.1. Mega events

Mega events are forces that are out of the ordinary and force a response in the form of MIPs. They might be environmental, economic, social or political events. Westhuizen (2008) argues that limited transparency and limited stakeholder involvement are two factors usually attached to them.

Dimitriou *et al* (2013) further adds that that ‘mega events’ (such as major political change, World Cup Finals and Olympic Games) may both positively and negatively impact the contextual risk, uncertainty and complexity of MIPs decision-making. These are due to pressure that may be caused by a forced time scale and high necessity of delivery.

This section will show the way mega sporting events are affected by multiple contexts. In the Asian context of China, Davis (2007) notes that the winning of the Olympic bid has birthed multiple mega infrastructure projects in the form of a build-operate-transfer system in which private investors become operators for a thirty-year period. He argues that these infrastructure projects will be privatized and commercialized after the Olympics. Examples of such methods include the Swim Center, which was designed to include cafes, restaurants, and a Cinema. The Water Cube - where U.S. swimmer Michael Phelps made history by winning eight gold medals - has been transformed into a water park popular among local families. Its operators even peddle purified glacier water under the Water Cube brand for additional income (CBS news, 2017).bDavis adds that almost everything was designed to be profitable in the design process and commercialized within this hidden scheme (low stakeholder involvement) that was subsidized to the private through the use of public funds. He argued that it would have been righteous if not for the price land losses, excessive taxation, inflation and shrunken welfare programmes for the poor. These issues were justified due to the factor of time and that the decision to finance the private sector involved with the construction was the quickest way to provide the promises of growth and worldwide presence. Several public protests occurred, but they did not stop or alter the advance of the Olympic-related MIPs development.

Another example is the London Olympics where its constructed projects are facing new life post the mega event as the economist (2017) notes:

*“The athletes’ village now belongs to parents wheeling pushchairs through leafy squares. The press Centre these days is a hub for digital businesses. University College London is planning a campus near the stadium, where the Victoria and Albert Museum and Smithsonian Institution are looking to build galleries”*

In another context, Hannan & Sutherland (2014) note that the awarding of the 2010 FIFA World Cup to South Africa offers another example of low stakeholder involvement in mega event MIPs. They note that winning the bid initiated the development of a number of mega-projects around the country in preparation for this event. Due to time concerns and commitment, sustainability and social issues were ignored. In general, these are two factors which are very hard to deliver within short periods of preparation, as these two factors can easily lengthen the delivery of an MIP. Nevertheless, Hannan & Sutherland (2014) argues that in this fragile context, scarce public resources were diverted to fund these projects rather than using the money to address more critical needs. These projects have imparted costs that future generations will be burdened with, as its significant economic benefits were concentrated among large construction firms and local political elites.

### 3.6.2 National development plans

Mega infrastructure projects that are part of a wide national development plan aim to establish prosperity and growth and are based upon visions of governments that help to improve the nation. The Shinkansen railway network offers an example of an MIP born from a national plan. The Shinkansen mega transport project is located within the Japanese context, where its economy in the 1960s was rapidly developing. OMEGA (2010) argues that its birth came from the 'Plan for Rebuilding the Japanese Archipelago' and emphasized the need for the Shinkansen network not only to connect densely populated regions but also to construct railway stations in low populated regions to promote regional development projects around the stations. Because the fast pace of development and growth was only concentrated on specific cities and regions, it aimed at decentralizing the population and industries and distributing profits accumulated in metropolitan cities to local regions. OMEGA (2010) notes the project delivered a great success story and helped with the growth aspect in Japan Furthermore, Hiramatsu (2018) analyzed the impacts of regional economic

growth such as job growth and population for a high-speed railway section of Kyushu within the Shinkansen network. Hiramatsu (2018) conducted an “inter-regional computational general equilibrium model for practical application purposes to analyse the effect of establishing High speed railway (HSR) on the regional economy (i.e., jobs, population, and economic scale)”. The analysis concluded that there was an increase in economic scale within the Shinkansen network.

However, not all projects born from a national development plan succeed. Within the Chinese context, the Hong Kong airport and its railway line that runs within the city offer an important example. Two mega projects were based on a national plan to improve Hong Kong City’s international image and its economic capabilities by enabling competition with other international cities in the ever-challenging world of globalization (Omega, 2010). Harvey (1989) further asserts that cities compete through the production of mega projects as instruments of economic growth.

Paul (2004) further details this aspect by noting that the investment of mega urban transport projects creates a healthy economic environment, thus giving a city a global competitive edge. Nevertheless, that vision was born during a critical time for Hong Kong that caused delays and huge obstacles specifically within the funding and finance aspects of the project. It was happening within the transition period from the hands of the UK government to the Chinese government. The Chinese government thought of it as an act of emptying the reserves of Hong Kong by the UK while the UK government justified it as a way to assure that the city would continue its growth after its transition back to Mainland China and is part of a developed national plan. The vision was later shared between the two governments and both of the projects were green lighted. Yet a concerning issue was that the studies and progress of the project were heavily focused on economic aspects and ignored key issues such as

impacts on the communities being affected by large scale projects. As (Omega, 2010) notes residents were effected by air and noise pollution during the construction of the project. Further, Omega (2010) notes that the Hong Kong airport railway average number of passengers were overestimated. As the average number of passengers were 22,000 per day in 1998 compared to the forecasted 36,000 average per day for 1998. Further, only an average of 25% of passengers traveling to/from the airport used the railway from 1998 to 2006. Significantly different from the forecasted 55% of model share for passenger's travel to and from the airport.

This represents a dilemma whereby, as explored in previous chapter, political influence is an important factor towards MIP success, but it could also be a factor which leads to MIP negative outcome. Because this specific project was born out of a political battle between the Chinese and British governments, the politics had to intervene into the decision-making process where the politicians in power left rational concerns noted by other stakeholders, creating a Mega project based on inaccurate forecasts.

### 3.6.3 Specific emerging goal

The artery and tunnel project in Boston, known also as the "Big Dig," is a great example of a mega infrastructure project born from an emerging goal. Although it was fought against from a national level, with even the president of the US against it at the time, it proceeded through excessive lobbying. It can't be part of a national plan because it only achieved specific goals in relation to Boston locals, but it absorbed national money worth 14 billion dollars and several billion more through later environmental mitigations. It shows how an MIP that isn't considered part of national development plan or the occurrences of a mega event, but through specific emerging goals so great and rewarding that it can impact the decision-making process and alter certain governmental budgeters (Altshuler & Luberoff, 2003). Dimitriou et al, (2013) argues that having an open

perspective and a greater understanding of the actual and potential interactions of the project decision-making within a context makes unanticipated outcomes visible as part of an 'emergent order.' Another example noted by OMEGA (2017) is the jubilee line extension (JLE), which was attached to the emergent development from the east and south-east development of London, specifically the Canary Wharf development. As Canary wharf developed, Olympia & York (owner of the Canary Wharf), lobbied for an improved transport infrastructure to serve their project while also promising to be a contributor for funding such projects. Although an early proposal by Olympia and York was rejected in 1988, the extension kept on being lobbied until its approval.

### 3.7 Mega infrastructure projects: The iron triangle or strategic effectiveness

Thus far, this literature review has focused on solutions and theories regarding time, quality and budget overruns (iron triangle) of MIPs. Another significant part of an MIP's success is achieving effectiveness through the delivery of its strategic intentions based on the policies that give birth to such projects. Failing in this aspect could cause severe economic, social, political and environmental issues for the government. This section focuses on how to improve the effectiveness of MIPs through decision making. MIP success is not merely based upon time, budget and quality, which are usually referred to as "the iron triangle", but rather success is based upon the achieved public policy goals (Allport, 2011).

Furthermore Tang & Lo (2008) notes that goals and objectives might change over time depending on a country's economic cycle and its changing stakeholder's benefits as MIPs can last decades from the planning to delivery phase. Priemus (2010) asserts this view as he notes that goals and objectives might get changed when new stakeholders arise in the case of political transition. Hall (1980) further notes that such risks due to the longitudinal aspect of MIPs can be sourced as changes in political climates which alter the project's goals and objectives, and technical aspects such as technological advances that make the old one



unwanted or a social aspect that can also eliminate the effectiveness of old objectives.

Atkinson (1999) states that with complicated projects, success is dependent on not only three aspects of the iron triangle: there are the benefits of the organizer, the stakeholder community, and the information system. Table 3.2 details the success criteria as noted by Atkinson (1999).

**Table 3.2 Success criteria**

Iron Triangle	The information system	Benefits (organisation)	Benefits (stakeholder community)
Cost, Quality and Time	Maintainability	Improved efficiency	Satisfied users
	Reliability	Improved effectiveness	Social and Environmental impact
	Validity	Increased profits	Personal development
	Information- quality	Strategic goals	Professional learning, contractors profits
		Organisational- learning	Capital suppliers, content project team,
		Reduced waste	economic impact to surrounding community

Williams and Samset (2010) illustrated this dilemma through two MIPs: one was in the Health sector and the second in the Military sector. The first example, the

University Hospital in Oslo, Norway, was a project that was viable in strategic terms, but was inefficient in its delivery. Due to emerging new technologies and added responsibilities captured during the engineering phase, after the budget was decided, it was completed a year behind schedule, with considerable cost overrun, media outcry and public inquiry. However, the conclusion after a few years of operation was that the University Hospital was a highly successful project. Cost overrun was insignificant to a lifetime perspective. What would have been more worrying if the project failed in strategic terms, even if it successfully produced no budget or time overruns. The second example Williams and Samset (2010) argue suffered strategic failure, in cases where the choice of concept turns out to be the wrong solution to the problem, thus creating new problems. An example of this is a project to build on-shore torpedo battery inside the rocks on the northern coast of Norway in 2004, a huge and complex facility that can accommodate 150 military personnel for up to three months. It was officially opened as planned with no cost overrun. A week later, it was closed down by a Parliamentary decision, as they argued that no enemy would expose its ships to an obvious risk. Nevertheless, the project got little attention in the media because it was a success in time and budgetary goals even though it was a strategic failure.

Dimitriou et al (2013) argues that the confusing and contradictory views in success for MIPs raise an urgent need to understand how objectives are delivered and to develop more robust criteria in which they should be judged. What further complicates this issue is that MIPs may hold hidden agendas or unofficial policies that result in further complexities, and the loss of an official goal might be the success of hidden ones. For example, the loss of an official social or environmental goal might result in the delivery of a hidden economic goal.

Contextual influences can affect the ultimate project design, programming, costs and relationship with territories served/traversed, or even in some cases the very rationale behind the project (Dimitriou et al., 2013). It is logical to say, then, that a project's success in the Middle East will differ significantly from one in the European context. As Zhi (1995) notes, regarding the factor of context, each project would have its unique risk and organisational context that would alter the strategic approach of the intended project. PMBOK (2000) further adds that organizations differ from one another because they are shaped by the cultures, values, norms, beliefs and expectations. These aspects affect their policies and procedures, and they directly influence a project's lifecycle.

Marrewijk (2007) asserts that organizations have to be perceived as cultures. In this "root" metaphor, organizations are modern tribes with artefacts, practices, values, multiple cultures, power relations, conflicts and abnormalities. He notes:

*"Megaprojects are characterized by a culture that is ambiguous; it has fuzzy limits and embodies a duality between objects and actors who are willing the projects into being. There is usually no single centre of calculation and control but many collaborators. Rationality in megaprojects is always incomplete and imperfect in action, and we know that decision-makers rarely look for optimal solutions, as they never have sufficient information to be able to do so. People generally operate with a bounded rationality, constrained by limited searches, imperfect knowledge and finite time. Decisions are made when solutions, problems, participants and choices flow around and coincide at a certain point."*

Further to add Pant et al. (1996) add that the transfer of western management and organization models and practices to developing countries will be problematic and that it would not be a suitable vehicle for implementing projects. Pant et al. (1996) also provide as an example a study of project organizations in Nepal, which shows that Nepalese managers are more bureaucratic than western managers, creating problems in the flow of project development.

Herder et al., (2011) argues as MIPs are implemented over several years, sometimes decades, and there are many factors that can change in the meantime: technological advances, changing stakeholders, political shifts, and economic fluctuations. These issues should be further addressed though a robust decision-making framework and adjusted appraisal tools can further aid the decision-making process. Making decisions for MIPs is risky and critical in recent times as uncertainties are continuously growing. Herder et al., (2011) further explain decision making for MIPs is always complicated because it has to be taken in the face of uncertainty of future developments. This dilemma is further deepened by the fact that costs of MIPs are high and nearly irreversible, abortion of these type of projects could cost as much as finishing them.

### 3.8 Institutional impact on Mega infrastructure projects

Pfahl (2005) notes, while studying institution's impact on sustainable development, that institutions determine a society's development as they help shape their values by building frameworks for human actions in defined contexts.

Dimitriou et al. (2013) argues that issues of decision-making could be explained by the lack of sustainable institutions, as government institutions that are poorly developed often result in the waste of precious resources. Looney (1992) noted on this aspect as he argues that Saudi Arabia's limited capacity of government institutions has generated wasteful projects that are harming the nation's long-term economic system.

Surowiecki (2004) further add that weak governmental institutions may encourage comfortable arrangements between politicians and the businesses they regulate, allowing economic policy to be run in the interests of powerful groups rather than public interest.

Dimitriou, (2009) notes that it is further troubling to the global development of MIPs that global institutional capacities are developed by global corporations which affect the attitudes of less-developed governmental institution regarding decision-making, which may alter a project's size. Encouraging larger projects may negatively impact developing countries with lack of expertise and additional political, economic, social and environmental concerns due to rapid economic or population growth or both.

Zeng *et al* (2014) further adds that institutions characterized by strong government and weak regulations will affect the social responsibility performance of MIPs, such as excessive administrative intervention, public power alienation, opportunistic decision-making, bribery and corruption. He further adds that reduction of these issues requires that institutions responsible for developing MIPs include wider stakeholders during the conception and proper information disclosure.

According to Dimitriou et al. (2013), the success of sustainable MIPs requires the ability to balance the four pillars of sustainable MIPs, which are economic, social, environmental and sustainable institutions. Thus, investing in the institutional capabilities of decision making and appraisal will improve the chances that an MIP will be a success.

Flyvbjerg *et al* (2002) notes that governments have accepted the fact that MIPs are showing low levels of success; thus, they looked into ways of helping reduce this issue and develop its institutional capabilities. Such example is the green book which was established by the UK government to help in the appraisal and decision-making of MIPs. Dimitriou et al. (2013) further add on this aspect, that the UK government is investing in its institutional capability as it has introduced *Infrastructure UK* within the treasury to help assess MIP development. Australia followed the same route and established Infrastructure Australia, which has been

set up to advise the Treasury of investment priorities for critical national infrastructure developments. Infrastructure UK has since merged with the Major Projects Authority on the 1<sup>st</sup> January 2016 to become the Infrastructure and Projects Authority (Government UK, 2018). As of 2018, the Infrastructure and Projects Authority will be part of a 10-year, 600-billion-pound investment in UK infrastructure (Government UK, 2018).

Furthermore, the European Union (EU) increasingly provides standards regulating the implementation of cross-border projects in the aim of reducing the risks of projects that fall within their international jurisdiction.

The basis of rational decision-making in the face of uncertainty is fundamental to the process of modernization. Winch (2013) argues that managing multinational organizations requires understanding very large and temporary situations. He further adds the main issue is that it is complicated to know the most efficient allocations of major projects. As resources change, it becomes difficult to predict which choice of Major project will have the least negative effects on a country's resource. Knowledge of an efficient mega project can only be known 10 or 20 years later.

Thus, it can be concluded from the literature reviewed above that investment in institutions and a setup for decision making and planning is very critical to the strategic success of MIPs. The next section looks at the peculiarities of institutions and the common issues they face.

### 3.9 The Institutional setup of decision making

Dimitriou et al. (2013) note that organizations which plan, appraise and deliver MIPs must undertake institutional change/ innovation in order for them to cope with new interfaces that are encountered by their MIPs. He further adds that to

improve the decision-making process, they must adopt a “learning culture” that records mistakes encountered, with the aim of avoiding them in future projects.

Nevertheless, Duffield and Whitty (2015) argue that there is a trend among institutions governing complicated mega projects, wherein they fail to learn from past projects. Documented lessons learned are unable to be implemented in new projects, even if signs of these documented problems are seen within the early stages of projects. Duffield and Whitty (2015) examined the literature and found two studies; the first was by Milton (2010), who stated that of 74 organisations which attempted this (lessons-learned process) on complicated projects, 60% of these organisations were dissatisfied. The second was a study by Williams (2000) found how 62% of 522 project practitioners argued that along the process of lessons being learned only 11.7% actually followed the process. Duffield and Whitty (2015) further add that even highly developed organizations such as NASA struggle with lessons learned from their complicated projects. They note:

*“Following reviews in 2000 of NASA's Mars Program, the Space Shuttle wiring problems, and the implementation of NASA's Faster, Better, Cheaper (FBC) project, NASA implemented action plans to improve sharing of experiences and lessons learned. In 2002, the Government Accountability Office found that NASA's lessons learned were not routinely identified, reviewed and accessed by project managers. A recent 2012 NASA Office of Inspector General audit report highlights that NASA project managers are still not routinely using the lessons learned information system (LLIS) to contribute new information or to search for lessons learned identified by others”*

Duffield and Whitty (2015) also point out how, during their study of the literature, they found further signs which show that lessons are not being learnt, specifically in the public sector. As examples, they cite when the Australian State Victorian Government Ombudsman studied 10 major ICT business transformation projects during the period of 2011 and found that despite the extensive guidance, literature and reports handed out, project managers were

still stepping into the same mistakes revolving around governance, planning, project management and procurement.

Duffield and Whitty (2015) argue that such an issue is a people factor, and to provide a resolution they studied the organization or institution's cultural and social people factors such as what is already known/believed by other members and the already present information in the organizational environment. Duffield and Whitty (2015) conclude that although the identification of lessons learned is done by quite a few organizations, its implementation is an issue. The path to resolving this issue in an organization is to research the people element and culture and to identify how they can negatively influence lessons learned.

Furthermore, Sanderson (2012) provides explanations for the performance issues that "plague" mega projects and has concluded that they can be rooted in the following three categories:

- Rent-seeking or opportunistic behaviour such as optimism bias and strategic misrepresentation to help approve non-viable projects.
- Governance arrangements in which performance issues are related to the institutional setup that is weakened by the underdeveloped governance mechanisms, which in turn fail to overcome turbulence, as they lack robustness and flexibility in the face of problems they may face.
- The explanation that issues with mega projects are the result of organizational complexity created by diverse and competing project cultures and different rationalities that occur on a day-to-day basis.

The first point has been discussed in the earlier section. The other two aspects provide interesting insights and raise a very important issue, which is



institutional build-up of effective decision making and coping with the complexity of cultures and different rationalities.

Müller et al. (2014) argue that the institutional setup of governance can be implemented through soft cultural values that the organization members share and respect or through strict rules by enforcing process compliance and controlling the members' results, i.e., task outcomes.

On this subject, Bony (2010) discusses how the notion that management and national culture do not have impact on each other is strongly criticized by the literature. The perspective that management is governed by only autonomous actors and objective practices without any effect of national culture is facing growing criticism, as it cannot make a distinction between a dominant and universal practice of management. He further argues that focusing on culture and providing a context of meaning can help understand how the context will influence practices of management. Developing knowledge of institutional, social and political context can greatly help understand and develop project management in governments and countries. He concluded that in a period of intense globalization and internationalization, the field of management needs to further research the mechanisms of articulation between local and global. Developing knowledge and focusing on the particularities of different governments and countries can provide significant benefits to the field of management.

Marrewijk and Smits (2016) note that they perceive megaprojects as an outcome of social interactions, bringing out the importance of the cultural perspective when governing or creating mega projects. They argue:

*"We perceive megaprojects to be the outcome of social interactions just like any other form of organizing within a multiple context of socially interdependent*

*networks. Megaprojects bring together, under various contractual arrangements, competing partners with different interests, different national and organizational cultures, and different ways of doing and thinking. As a result, this emphasizes the importance of acquiring a more in-depth understanding of cultural processes in megaprojects”.*

Vaisey and Valentino (2018) elaborate further on the importance of cultural aspects within governments and their institutions, and how this also influences the decision-making process. They argue that the science of economics provides the decision makers alternatives and choices, but the cultural aspect might eliminate or reduce their choices.

Camprieu et al. (2007) take note of the significant literature arguing about the differences in value orientation between western and eastern societies, which even extends to the perception and evaluation of the risk and complexity of projects. The difference in value perception can also influence the decision-making process of project selection. Uncovering the cultural surroundings of certain institutions can help predict which projects would be selected, even before having expensive feasibility studies. This can also help develop marketing strategies for providing risk information required by project sponsors for making a project approval decision.

According to Biesenthal et al. (2018), there is a need to understand that institutional contexts that govern and create mega projects are approaches of strategy, as they are constructed based on the cultural logic of the institutions that govern them. It is, therefore, significant for those that research mega projects to provide context to the institutional background that give birth to such projects.

Context is of great importance. It affects the way MIPs are produced, and “context awareness” is a key factor in successful decision making. Drawing

awareness to a project's context is a constructive way to build successful projects, as they note, writing on this aspect:

*“Context awareness and sensitivity to context on the part of project decision-makers is vital for both the successful planning, appraisal and delivery of MTPs and suitable treatment of contextual risks, uncertainties and complexities.”*

### 3.10 Synopsis

This chapter has explored the birth and spread of MIPs, which are agents of political, social, environmental or economic change. Nevertheless, they have also resulted in huge burdens. Several theories that relate to their low level of success were noted. Furthermore, several theories that might aid MIP planning decision making to overcome cost issues were explored. The literature asserted the need for developing substantial institutional capabilities that can overcome the issues of MIP planning and implementation to deepen the rationale that goes into approving and planning such projects. The literature recommends that future chapters take into the consideration the contingences of a specific context for each project. Any adjustments to the decision-making process must take into consideration the issues of context.

The main outcomes from the previous sections of this chapter are:

- Section 1

This section provides the main definition of MIPs that will be carried through this thesis, which is: projects of economic significance or large-scale initiatives, which require highly significant resources, and aim to contribute significantly towards the social development and advancement of countries and nations. These projects can be of soft infrastructure such as large shells of buildings, e.g., universities, or hard infrastructure, e.g., high speed railways.

- Section 2

Section 2 explains how the spread of mega projects started in the 19<sup>th</sup> century due to the industrial boom and became associated with modernity. MIPs proved to be agents of change and the availability of technological assets has made implementation easier than in the past, they became a solution to major issues or statues of modernity. As the modern world views MIPs as the solution to problems and they become much easier to create and spreading faster, arises a risk that if not planned they well will create major issues. This section highlights that in the modern world MIPs can become an indicator of how much the institutions of a given country are capable of using MIPs as solutions to their main issues.

- Section 3

MIPs are found in the literature to be regarded as great tools to generate economic, social, political and environmental benefits. Yet these benefits are interlinked. It would be almost impossible to produce a mega project of social benefits without certain economic impacts and vice-versa. The planning process of such projects must take into consideration all the economic, social, political and environmental aspects. This is important, because it showcase that MIPs must balance between economic, social, political and environmental aspects within the early planning process to produce sustainable and successful projects.

- Section 4

This section explores the rational considerations that must be taken into account while planning MIPs. It brings out the reality of the evident aspect of budget overruns of MIPs and discusses the leading theories that provide explanations for such failures. Thus, this section visits the following theories explaining MIPs' lack of budget commitments, which are Escalation of commitment, Strategic misrepresentation, Optimism bias, Technological sublime and Scope change.

- Section 5

Section 5 explores the theories that aid and strengthen the ability for budget commitment and consequent effectiveness of MIPs. This section looks into value management and how to ensure that the intended purpose of projects is delivered. Furthermore, Scenario planning and Problem theory for MIPs are discussed. It also explores Collective intelligence theory as a measure to be used for enhancing stakeholder involvement. Finally, the section raises the importance of the Contingency theory and its demand to review the context in which projects are developed. The section provides recommendations on stakeholders' involvement and highlights the importance of context.

- Section 6

The literature here has explored the effects of the context in which an MIP is built. This premise is approached first through the formation context, noting that there are three formation characteristics that give birth to mega projects, which are mega events, national development plans or specific emerging goals.

- Section 7

The section explores the views on strategic success of MIPs, linking the fulfilment of goals and policies to the success of MIPs. Another view of success that is not exclusive to the idea of success is based on the iron triangle; time, cost and quality.

- Section 8

The focus of this section within the literature is to bring out the realities of institutional impact on MIPs. Success is related also to sustainable institutions that take into consideration stakeholder involvement and having the vision to acknowledge the social, environmental and economic aspects of certain contexts that are intertwined with MIPs.

- Section 9

This mainly points out that success or failure of MIPs can be related to the institutional setup that governs MIPs. There is a need to study and provide new knowledge through research on the national contexts that govern MIPs.

### 3.11 Conclusions

The literature review first provided the definition of MIP, a definition that will be carried throughout the thesis. The chapter then discussed the complexities of MIP delivery and their impact, whether economic, social, environmental or political. As for delivery, the chapter noted two significant issues, which are budget overruns and strategic failure. The literature review then argues between the strategic value of MIPs or budget commitments. The literature proceeded to focus on the importance of understanding the institutional setup for governing MIP decision making. Dimitriou et al. (2012) argued about the importance of context, referring to it as the “power of context” that can make or break an MIP development. Understanding contexts is very critical for MIP studies. The reason is that knowledge about successful planning and development of MIPs cannot be generalized. This brings up the need to develop contextual knowledge to understand the values and realities of institutions that govern such projects. To understand the decision-making setup for MIPs and major projects, these aspects need to be uncovered, because as noted by Dimitriou et al. (2013) above, contextual knowledge for developing MIPs is critical for successful planning and decision making. The chapter concludes with the need to focus on context, the importance of studies developed around the institutional culture that governs MIP development and the institutional setup for decision making.

The studied context in the research will be the Kingdom of Saudi Arabia. This has been chosen in Chapter Two. Based on chapters Two and Three, it is concluded that there is a knowledge gap that can be filled, which is to develop contextual

knowledge of MIP development in Saudi Arabia, in particular the Saudi institutional setup for planning and decision making related to MIPs. Considering the difficulty of generalizing knowledge in regard to MIP planning and development, developing contextual knowledge is critical. There is a need when studying MIPs to develop their context one by one. It is like creating a map for MIP development in which each part of the world has certain peculiarities to work with. Avoiding the possibility of generalization while working on MIPs can enrich the academic resources surrounding this complex subject as noted in section (3.9).

# Chapter IV

## Methodology and Methods



## 4. Introduction

Chapter four details the research methodology and the methods of data analysis. The chapter will explore the objectives of the research and present the direction that this study took for the study objectives. The chapter will provide a rationale for the methodology of the study and explain why the researcher chose these methods of investigation and why they are best-suited to generate the outcomes aimed for in this study. The research will also consist of an overview of the key literature related to the methods adopted.

The chapter is split into nine sections. Section 1 offers a rationale for the methodology of the study and explains why this particular approach is best-suited to answer the research questions. Section 2 explores the paradigm of the study and argues on the chosen paradigm. Section 3 views the research data and research instruments used to collect the primary data used in the research. Section 4 argues on the sampling method used, namely snowball sampling. The ethical consideration of data collection and analysis are noted in section 5. Section 6 points out the translation method used in the research. Section 7 highlights the limitations in which surfaced while conducting the research. Objectives of the research and methods used to achieve these objectives are explained in section 8. Section 9 concludes and summarizes the main points discussed in this chapter.

### 4.1 Methodology of the study

Researchers have defined research methodology in many different ways. For example, Bryman (2006) defines methodology as the study of the methods employed to analyze data. He argues that it is concerned with the practices used to uncover assumptions. Willis (2003) argued that methodology, is a description of the study design, the procedures for data collection, methods for data analysis, selection of subjects, and details of the specific treatments.

Furthermore, Watkins and Gioia (2015) define methodology simply as a lens through which research is examined. They further argue that a researcher's choice of methodology in addressing a research problem is related to the scholar's perspective on the world. For example, some researchers prefer experience and words over statistics and numbers and vice versa. The following sections will explore the methodology adopted along the research.

#### 4.1.1 Type of research

Watkins and Gioia (2015) note that in social science, most studies are rooted in one of three types of research: exploratory, descriptive, and explanatory.

Exploratory research involves studying a particular phenomenon in order to understand the concepts that are relevant within a particular event. Descriptive research involves describing the phenomenon more holistically, using quantitative measures such as the number of people, places, and things that are involved and their characteristics, such as the manner and the frequency of their occurrence. Explanatory research aims to reason "why" things occur while offering predictions and causations and explaining the relationship between variables.

Kumar (2011) adds that explanatory, exploratory and descriptive research are both necessary components of objective research. He further defines them as follows:

- Exploratory research: a study undertaken with the objective either to explore an area where little is known or ***to investigate the possibilities of undertaking a particular research study***
- Explanatory research: a study which attempts to clarify why and how there is a relationship between two aspects of a situation or phenomenon

- Descriptive research: a study that attempts to systematically describe a problem, situation, phenomenon, program or service

The research will firstly use an exploratory research to further understand the studied context. gathering primary and secondary data to make sense of the Saudi context. As Williams (2003) argues that when conducting exploratory research in the early phase of the research, it is usually expedient to create a starting point for the next step of the research. He further adds that it is used to test hunches or develop new ideas for the research and that ***its methods are usually quite informal***. Stebbins (2011) argues that researchers conduct explorative research when there is insufficient knowledge regarding the area of study. He further adds that to effectively explore a topic, it must be approached with two important factors, “flexibility in looking for data and open-mindedness about where to find them”. Edgar (2017) argues that exploratory research is a starting point for research. It provides an understanding to the study context by discovering the patterns, principles and laws of behavior, enabling the researchers to focus on the study. This approach is affirmed by Jebb et al. (2017), who argue that exploratory research builds information to guide further research and is used to build up to a more focused study. Kumar (2011) further adds that such a study is undertaken in a small-scale with the aim of building knowledge to the research. Thus, ***the first part of the research involves a pre-research stage using an exploratory direction*** in the context of Saudi Arabia. The exploratory strand of this study investigates the Saudi government’s goals and vision. Doing so would provide further knowledge to the researcher and the research regarding the context being studied.

Once such a research is conducted, the research will choose its main research direction that will help in delivering the aim of the research. The main aim of the research is to understand Saudi’s institutional set up for decision-making for MIPs and to explain the relationship between the Five-year plan (FYP) and Mega

infrastructure projects (MIPs) development. This aim follows an explanatory direction. Bhattacharjee (2012) argues that explanatory research provides an explanation of the observed problems or behaviors used mostly in academic or doctoral research. Descriptive research, based on the definitions above, can provide details into the current institutional set-up of decision making for MIPs. It does not go further into explaining aspects that helped in forming the current relationship between the FYP and MIP development in the Saudi context. As Maxwell and Mittapalli (2012) notes that explanatory research, which can be used in qualitative studies, aims to *explain* the aspect studied.

#### 4.2 Paradigm of the study

Denzin (2001) notes that a research paradigm involves consideration of epistemological and ontological views in relation to the research strategies.

Lawson (2004) noted that ontology is an entity, or a thing – it is the study of what is or what exists. Scotland (2012) further adds that ontology is concerned with the researcher's need to take a position regarding their view of how things work and what things are.

Epistemology is concerned with the formation of knowledge and the nature of doing so; its focus is on how knowledge is created, communicated and acquired. Klakegg (2016) argues that once the researcher understands the meaning of both ontology and epistemology, he can begin creating a strategy for his research. Once his positions are set, the researcher must follow those choices. Abdel-Fattah (2015) agrees with Klakegg (2016) that choosing the paradigm of the study is based on the choice of the philosophical assumptions of ontological and epistemological views. Table 4.1 and table 4.2 showcase the ontological and epistemological issues of several social research lenses

**Table 4.1 Ontological Issues (Source: Della porta and Keating (2008))**

<i>Ontological issues</i>	Positivist	Post- Positivist	Interpretivist	Humanistic
Does social reality exist?	Objective; realism	Objective, critical realism	Objective and subjective as intrinsically linked	Subjective: science of the spirit
Is reality knowable?	Yes, and easy to capture	Yes, but not easy to capture	Somewhat, but not as separate from human subjectivity	No; focus on human subjectivity

**Table 4.2 Epistemological Issues (Source: Della Porta and Keating (2008))**

<i>Epistemological issues</i>	Positivist	Post- Positivist	Interpretivist	Humanistic
Relationship between the scholar and his/her object	Dualism: scholar and object are two separate things; inductive procedures	Knowledge is influenced by the scholar; deductive procedures	Aims at understanding subjective knowledge	No objective knowledge is possible
Forms of knowledge	Natural laws (causal)	Probabilistic law	Contextual knowledge	Empathetic knowledge

Table 4.1 shows that the epistemology of an Interpretivist is best used for the researcher as it is highly-focused on generating contextual knowledge regarding the researched topic. This dissertation study is focused on the context of Saudi Arabia's MIP development, specifically its institutional set-up for decision making. The literature review concluded that the main aspect to consider while studying MIPs is the context that surrounds them and that every context is different from every other. The research questions focus on the Saudi MIP decision-making process and development. Therefore, this research investigates a particular context in relation to MIP planning and formation. Jerry (2007) argues that interpretivists focus on understanding a particular context. The goal of interpretive research is understanding a particular situation or context rather than the discovery of universal laws. Della porta and Keating (2008) extend Jerry's (2007) view that interpretive research aims not on discovering laws and the relationships between variables, but on understanding contextual phenomena. They add that the outcome of the research is the explanation of a specific case. In this case, it is the mega project development in Saudi Arabia. Thanh and Thanh (2015) further add that interpretivist involves understanding a particular context. Interpretivists believe that it is critical for the interpretation of the data gathered to provide a key contextual knowledge.

Della porta and Keating (2008), with regard to interpretivists note the following:

*"Interpretivists work inductively, build up the research question in the course of the research and are prepared to modify the design while the research is in progress. There is thus no clear time distinction between the research design and its implementation, as they are interlinked with continuous feedbacks."*

This aspect noted by Della porta and Keating (2008) provide flexibility while developing the research. As the research was developing, certain limitations were faced by in terms of data collection. These limitations formed a factor in

developing the final direction of the research. The limitations faced in the research are noted in section (4.7).

This approach, instead of delving into testing theories will aim on answering the research aims. As Abdel-Fattah (2015) argues, interpretivist encourages being interpretive rather than testing and validating hypotheses through the different perspectives of participants. Jerry (2007) further adds that interpretivists are free to use any form of research as long as it has the ability to be critical to data interpretation. Williams (2003) also asserts that in interpretivist, operationalization is flexible, and the specification of indicators as the fixed measures or values is absent.

#### 4.3 Research data and research instruments

In chapter two, the researcher found that the Saudi decision-making process is highly centralized and its mega projects are mostly funded through the public sector. In this study, the researcher took a pragmatic approach towards collecting data and focused on the reality of decision-making in the Saudi context. Jerry (2007) argued that interpretivists tend to prefer data sources that are at the center of the issue. Thus, the researcher aims to extract information from the decision-makers of MIPs, which is the center of the research study. Jerry (2007) further argued that aiming for the source removes a great deal of objectivity and generalization of certain attitudes, while placing emphasis on the importance of context. This direction required ensuring that the pool of interviewees covered both the regulative and executive authorities, which are appointed by the King and not through a voting system. Interviewees included individuals from the Council of Ministers, the Shura Council, and a few high-level government employees. These conditions of the context encouraged the researcher to not widen the pool of interviews to people for data collection. This approach provides a unique aspect to the research. As for the researcher's

knowledge, there has never been a study that enters the circle of main decision makers in the Saudi context, which is a very private and closed political system.

The data are split into two sets. These two sets of data are considered the research instruments. Bryman (2006) describe the research instrument as instruments of data collection i.e., questionnaires, observation, interviews. The first research instrument includes 28 questionnaires completed by members of the Regulative and Executive Authority (of the 183 total members, 33 sit on the Council of Ministers and 150 on the Shura Council). Thorne (2015) noted when conducting interpretive research, the sampling is either convenient, theoretical, or purposive. A convenient approach for sampling the questionnaire and the interviews were approached owing to the difficulty in accessing them. The method selected is snowballing which is detailed on the next section which offered a way to approach the difficulty of access to participants who serve on the councils and high government officials. The second and main research instrument are interviews with members of the executive and regulative authorities. Brinkmann (2015) notes that Qualitative interviewing has become a key method in the human and social sciences as a tool to obtain knowledge. Gomm (2004) further argues that the main benefit of qualitative interviews involves exchanging ideas and an understanding between the interviewer and the interviewees effectively, rather than a more structured framework such as a questionnaire.

The interviews will be in the format of semi-structured interviews. Brinkmann (2015) argues that semi-structured interviews offer freedom for the interviewees to express their understanding and open new potentials for the research. Additionally, when compared to unstructured interviews, it helps the interviewer to focus the interview on important issues within the research project. Williams (2003) further adds that semi-structured interviews encourage the respondent to



expand on the standardized answers, which may evolve into more focused answers.

The data for the interviews consisted of 15 interviews, 5 from the Council of Ministries, 6 from the Shura Council, and 4 from other high-ranking government officials. Table 4.3 showcases their coding as follows:

**Table 4.3 Coded Interviewees**

Shura Council	Council of Ministries	Council of Ministries/Bureau of experts	Other governmental institutions
S1	C1	C4B1	O1
S2	C2	C5B2	O2
S3	C3		O3
S4	C4B1		O4
S5	C5B2		
S6 (O)			

Furthermore Kumar (2011) argues on the importance of pretesting a research instrument. He notes:

*“Having constructed your research instrument, whether an interview schedule or a questionnaire, it is important that you test it out before using it for actual data collection. Pre-testing a research instrument entails a critical examination of the understanding of each question and its meaning as understood by a respondent. A pre-test should be carried out under actual field conditions on a group of people similar to your study population. The purpose is not to collect data but to identify problems that the potential respondents might have in either understanding or*

*interpreting a question. Your aim is to identify if there are problems in understanding the way a question has been worded”*

Kumar (2011) further notes that pretesting is to ensure that there are no problems in the understanding of the questions and that it does not result in different interpretations by different respondents. He adds if there are problems in these issues there is a need to re-examine the wording and making it clearer. Thus, research instruments were pretested based on the issues noted by Kumar (2011). As it is difficult to find a group of people similar to the study population, the pretesting was done while conducting the data collection. As Ikart (2018) notes, a pretesting using respondent debriefing can be included in the survey. Ikart (2018) defines respondent debriefing as follows:

*“A respondent debriefing evaluation typically incorporates follow-up questions into the actual data collection method of the survey. It can be included as part of the survey pretest to provide input for revisions for the production survey, **or it can be included** in the survey to provide input for the next administration of a continuing survey. Respondent debriefing incorporates follow-up questions in a field test interview to gain a better understanding of how respondents interpret questions asked of them.”*

#### 4.4 Sampling

Kumar (2011) notes that the best method in qualitative research is selecting information-rich respondents who can provide the study with the information needed. This direction led the research to adopt Snowball sampling under Non-probability sampling designs.

Kumar (2011) defines snowball sampling as follows:

*“Snowball sampling is the process of selecting a sample using networks. To start with, a few individuals in a group or organization are selected and the required information is collected from them. They are then asked to identify other people*

*in the group or organization, and the people selected by them become a part of the sample. Information is collected from them, and then these people are asked to identify other members of the group and, in turn, those identified become the basis of further data collection.”*

Kumar (2011) adds that snowball sampling is useful when studying decision making, communication patterns or diffusion of knowledge. Cohen and Arieli (2011) add that this method of sampling is useful and effective when required to access populations that are very hard access such as **“high governmental figures”**, who are the targeted population in the research. They further note that the researcher creates a link between the targeted population and the initial sample, allowing access to further participants by reference. The research thus picked this method as a solution to access the regulative and executive authorities and High-level government officials, as they are quite difficult to reach. Goodman (2011) notes on this subject that snowball sampling is the preferred method for accessing hard to reach populations. The sampling starts with what Kowald and Auhausen (2012) refer to as ego seeds. These seeds are asked to refer other potential participants and are linked with the researcher for participation. This network grew to the 15 interviewees and 28 questionnaires respondents in the research using the snowball method.

#### 4.5 The ethical aspect of data collection and analysis

One’s research, as noted by Kumar (2011), must be based on strong ethical consideration so as not to cause harm to individuals, ensuring the proper use of information that does not include bias and maintains confidentiality. Sterling and De Costa (2018) further note that ethical research needs to provide the following:

*“Truth in reporting and representing data, fairness in citing and using the work of others  
and Wisdom to only conduct meaningful and useful research”*

Kumar (2011) argues, with regard to ethical consideration in research, that there are three main stakeholders to be considered. They are the following:

1. The research participants or subjects.
2. The researcher.
3. The funding body.

Each of these stakeholders noted above will be discussed in the following sub sections

#### 4.5.1 The research participants or subjects

Kumar (2011) notes that while working with research subjects or participants, a researcher must seek consent. He notes that the researcher must ensure, while conducting his/her research, that he/she assures that the participants are aware of the type of information the research is seeking, why it is being sought, the purpose it will be put to, how it will directly or indirectly affect them and how they are expected to participate. The research sought consent with its participants, first, making them aware of the research's main aim and what is expected to be gathered from these interviews and how it will be used for advancing the research. All the interviewees, before the interviews were conducted, were briefed on these aspects.

Kumar (2011) further adds that it is important to the issue of seeking sensitive information while conducting a research. He notes it is important to consider the sensitivities of the research respondents, and that while asking some questions one gives them time to decide whether they want to share the information. Thus, the researcher kept a few answers and questions out of the research and kept off the record after a few respondents were sensitive about them and wanted to be off the record.

Kumar (2011) further add that it is important to maintain confidentiality and that sharing of information about participants for purposes outside the context of the research is unethical. However, he notes you would need to identify the study population to place your findings into context if all the participants are kept anonymous. Thus, the research to maintain confidentiality and to ensure that there is no potential harm to the participants and protect their privacy, all of them were kept anonymous and only identifying the study population to serve the research. This direction has also been affirmed by Rogers (1987) as he notes that the researcher needs to ensure that his research participants are free of harm, with their privacy being maintained and ensuring anonymity and confidentiality. Rogers (1987) notes that the participants should be coded to ensure anonymity and confidentiality. Thus, all the collected primary data of interviews and questionnaires respondents were coded in the research.

#### 4.5.2 Ethical issues to consider relating to the researcher

Kumar (2011) notes that the most important aspect to consider while conducting the research is avoiding bias. Kumar (2011) notes it is important to not confuse subjectivity with bias. He defines bias as follows:

*“Bias is a deliberate attempt either to hide what you have found in your study, or to highlight something disproportionately to its true existence.”*

The research to ensure this does not include any biases. It presented the data and it conducts an analysis without hiding any aspects of the outcomes, with exception of recorded data that were kept of the record by the interviewees request. Cohen et al (2007) further adds that one of the most critical biases into research is incorrect reporting. They add that research should be reported clearly and make data available for checking. Thus, all research instruments are included in the appendices. The research presented all the data used within the research with no intentions of it serving the researcher’s interest or someone’s else interest. The analysis has been presented as it was and has been reported and

discussed with no bias. In both the pre-research and the exploratory study, all the results are included and in the research analysis and in chapter six, all the thematic analysis outcomes have been presented without hiding of any of the themes' outcome.

Kumar (2011) further adds another issue related to the researcher which is the inappropriate use of the information. He notes:

*“Sometimes it is possible to harm individuals in the process of achieving benefits for organizations. An example would be a study to examine the feasibility of restructuring an organization. Restructuring may be beneficial to the organization as a whole but may be harmful to some individuals. Should you ask respondents for information that is likely to be used against them? If you do, the information may be used against them, and if you do not, the organization may not be able to derive the benefits of restructuring.”*

Kumar (2011) argues that to counter this issue from an ethical perspective is to ensure that all respondents are known to them and are informed of the potential use of the information and the possibility of it being used against them and to let them decide on whether they would continue to participate or not. Thus, the researcher made the participants aware of these issues. Only one interviewee decided that he would not like to participate.

#### 4.5.3 Ethical issues regarding the sponsoring organization

Given (2012) notes that an important ethical aspect to consider regarding the sponsoring organization is accountability, where the researcher needs to complete the research within budget and within the timeframe identified. On this aspect, the researcher is still within the allowed timeframe and budget

Kumar (2011) notes on ethical issues related to the sponsoring organization which is mainly the restrictions imposed by the sponsoring organization. As he notes that most researches are funded by sponsoring organization. The unethical

aspect in these situations is that if the organization imposes restrictions and select the methodology of the study or prohibit the publication of what was found or include certain restrictions in a way that it may cause inaccurate information. The acceptance of such issues would be considered unethical. This study which is sponsored by King Saud University and the sponsor did not impose any restriction on the research whatsoever or prohibit the publication of any aspect of the study, and gave full control to the researcher with regard to how he would conduct his study.

#### 4.6 Translation

Choi et al (2012) notes that when conducting research that involves two different languages and the researcher has a good understanding of the two languages, the direction can be to conduct the interviews in the participant language, then transcribe the data into the participant language and then translate the full transcript into the study language, which in this case is English. This was the direction taken when handling the data, as interviews and questionnaires were conducted in the participants language (Arabic) and then translated into English for analysis.

Marín and VanOss Marín (2011) note that there are three approaches to translation in research data, namely: one-way translation, double translation and committee approach.

One-way translation was the method used in the study. Marín and VanOss Marín (2011) define one-way translation as:

*“One-way translation implies asking a bilingual individual to translate the original version of a text or instrument into the target language. The translator will depend on his or her knowledge of both languages and the information that may be available in dictionaries and other reference materials in order to produce the version in the target language.”*

Marín and VanOss Marín (2011) note that one-way translation can produce misinterpretations by the translator. They believe that a translator can create issues with the data as certain cultural aspects and behaviors may be unrecognized by the translator. This issue has been dealt with carefully as some cultural aspects found in the Arabic interviews can be picked up by the researcher in the translation process. As the participants language, Arabic, is also the researcher's native language, it provided a greater possibility to understand the issues with translating data. Further, the one-way translation was highly preferable due to the sensitivity of information and for ensuring participants' confidentiality, as the researcher, out of an ethical consideration, choose not share them while developing the research.

The researcher translated all the transcripts and conducted a review on the English transcripts and compared them with the original transcripts and then made minor adjustment to the English transcripts. This translation has been made keeping in mind the view of Lopez et al (2008) on an appropriate translation, as stated below:

*“reproduce as accurately as possible the source text, use the natural form of the target language, and express all aspects of the meaning in a manner that is understandable”*

#### 4.7 Limitations of the study

The study of the Saudi decision-making process for MIPs planning and development had certain limitations. These limitations of the study can be split into two categories, namely:

- Appraisal tools for MIPs used by the government institutions, such as cost benefit analysis (CBA):



Access to such data was not possible. Access to the Ministry of Finance to uncover the policies and appraisal tools used by them was also not possible.

- Access to projects and programs included in each of the five-year plans: The researcher wanted to know each MIP planned by the FYPs. However, this was not possible, rendering the comparison of the exact numbers or figures of the planned MIPs to the actuals built unobtainable. Further the research was not able to acquire data on specific MIPs that can produce quantitative case studies to understand rent-seeking behaviours, such as escalation of commitment or strategic misrepresentation.

In general, the main obstacle facing the quest for a wider study and further investigation into the planning and decision-making process was the lack of data access as noted above. This study would have required more interviews and government documents for further proposals and recommendations.

#### 4.8 Objectives of the research

This section will consist of an overview of the methods and aspects of the methodology used in the research objectives. The six objectives of the research are split into three categories as follows:

##### 4.8.1 Identifying the gap in knowledge

Two objectives were outlined to identify the gap in knowledge and to fill the knowledge gap as intended by the study aims. These objectives are as follows:

1. Understanding the institutional set up of decision-making for mega projects in the Kingdom of Saudi Arabia. This task involves understanding the nature of the MIP development in Saudi Arabia:

- The macro institutional setup that governs MIP planning and development.
- The executive and regulatory authorities' role in MIP planning and development.
- Understanding the FYP formation and role in MIP development

2. Conducting a literature review to identify the gap in knowledge that needs to be filled. This was done through the following aspects:

- MIP definition and historical threads.
- MIPs as agents of change.
- The realities of MIP (budget commitment issues).
- The formation agents of MIPs.
- The success of MIPs between budget commitments and strategic effectiveness.
- The effects of the institutional setup for decision-making on the MIPs' success.
- The extent to which the country's context affects MIP-planning and development.

#### *4.8.1.1 Understanding the institutional set-up of decision making for Mega projects in the Kingdom of Saudi Arabia*

This objective looked into the study's secondary data of governmental documents and literature. The objective covered governmental documents that showcased the institutional set-up for decision-making. The FYP was also looked into by providing a brief historical introduction to past FYPs. The formation of the FYP has been demonstrated through official governmental documents. The objective provided two important aspects to consider for further investigation:

- The macro institutional set-up of decision-making with regard to MIPs.

- FYPs link with MIPs.

These two aspects were found to be unclear and could be further investigated. Such a lack of clarity around these two aspects can be considered a gap of knowledge that can be filled.

#### *4.8.1.2 Conducting a literature review*

The literature explored several themes around MIPs. However, it was one critical aspect that drove the research aim. Issues of the success for MIPs either to budgetary issues or the effectiveness of the policy and goals. The literature rooted these issues under three categories:

- Rent-seeking or opportunistic behavior such as optimism bias and strategic misrepresentation.
- Governance arrangements related to the institutional set-up of decision-making and planning.
- Organizational complexity created by diverse cultures and different rationalities that occur on a day-to-day basis.

These three points can be examined in the Saudi context. Owing to the timescale of the study and limitation on data access, only one of those three points will be considered, namely, the institutional setup of decision-making and planning. Thus, the identified gap of knowledge that is aimed to be filled is the studying the institutional set-up of MIP decision making in the context of Saudi.

#### 4.8.2 Understanding the Saudi context and the peculiarities of its goals and policies

The direction was to uncover the leading goals for the Saudi government which would help create several study opportunities through an exploratory study. This was not possible, owing to the limitations which the research faced. For example, there was a consideration to conduct a quantitative study based a relationship of two main variables; An independent variable, which would be the ninth FYP high-ranked goals and a dependent variable, which would be all MIPs developed or planned in the ninth FYP. As the access of the planning documents of all MIPs was not possible, it caused a change in the direction of the study. Thus, this objective, which is represented in chapter five is not considered to be filling the aimed gap of knowledge or a tool to determine a potential gap of knowledge. It is considered as collection of primary and secondary data to enrich the general understanding of the researcher around the studied context, Saudi Arabia.

The process of conducting an exploratory study to uncover the main goals and agendas of Saudi Arabia, relies on both the present and the historical data, including early FYPs goals.

The research wanted to explore the Saudi regulative and executive authority's perspective on the FYP goals, priorities, and literature surrounding these goals. In this regard, the study will use a questionnaire with key decision-makers. It could be argued that since the Saudi context has few literatures in regard to its FYP development goals and priorities, an extraction of new data is required.

Questionnaires is the research instrument used. Burgess (2001) notes, with regard to developing questionnaires that the basic process must begin with defining the research aims. The second step is the identification of the population and sample. The third step involves deciding how to collect replies and appropriately designing the questionnaires.

These steps, as noted by Burgess (2001), are the starting points for developing the questionnaires. The first step is to define the research aims. The main aim of the exploratory research is to develop an understanding of the leading goals of the Kingdom, as argued earlier. Since the five-year plan goals are considered the official goals of the Saudi government, they will be collected as an indicator for the context's main aims and goals. Second, the population sample will be between the executive and regulative authority, as noted earlier. As stated in Chapter Two, authorities in the Kingdom of Saudi Arabia consist of: *Judicial authority, Executive authority and Regulatory authority*. The executive authority is represented by the Council of Ministers, whereas the regulatory authority is exercised and represented by both the Council of Ministers and the Shura Council (The Bureau of Experts, 2013). Based on Chapter Two, these two institutions are the final decision-makers for generating the Saudi goals for the FYP, since it falls within the purview of the regulatory and executive authorities as the final decision makers. Thus, the questionnaire pool targets the Council of Ministers (executive and regulatory authorities) and the Shura Council (regulatory authority). Third, the questionnaire will be distributed through the snowball method, as noted earlier. Finally, the design of the questionnaire is based on a weighing of each goal of the five-year plan from 1 < 10. The respondents were to be asked to weigh each of them on a scale of 1 to 10, with 1 being the lowest and 10 being the highest. Table 4.4 demonstrates the questionnaire design. Table 4.5 is a sample of the survey analysis. The variable considered is the weight of each FYP goal. In regards to variables Kumar (2011) defines them as:

*“An image, perception or concept that is capable of measurement – hence capable of taking on different values – is called a variable. In other words, a concept that can be measured is called a variable”*

**Table 4.4 Questionnaire**

Q: What would you weight each of the 13 goals of the ninth five-year plan from 1< 10?

Goals	Weight (1–10)
1 To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arabic and Islamic identity of the Kingdom.	
2 To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure the performance of religious rites easily and conveniently.	
3 To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	
4 To achieve balanced development among regions of the Kingdom	
5 To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	
6 To raise the standard of living and improve the quality of life of all citizens.	
7 To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	
8 To move towards a knowledge-based economy and consolidate the basis of an information society.	
9 To enhance the role of the private sector in the socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	

- 10 To develop, conserve and ensure the rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.
  - 11 To continue socioeconomic and institutional reform, develop regulations aimed at raising the efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.
  - 12 To strengthen the economic integration with the Gulf Cooperation Council and Arab states and develop relations with the Islamic and friendly countries.
  - 13 To develop the sector of the small and medium enterprises to increase its contribution to GDP and create frameworks for nurturing and organizing it.
- 

The weight of each goal is calculated to provide the mean and the standard deviation. Doing so would able the research to provide a ranking for the FYP goals.

**Table 4.5 Ranking sample of Goals using Mean and standard deviation**

	Goals	Mean (1-10)	Standard deviation	Ranking Group
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	9.43	1.82	A
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure the performance of religious rites easily and conveniently.	5.86	3.67	C

The respondents to the questionnaire were a total of 28, out of whom 23 respondents are Shura members (part of 150), and 5 of them members of the Council of Ministers (part of 32 members). The gathering of data commenced in December 2015 and concluded in March 2016, and was carried out in Riyadh, Saudi Arabia.

#### *4.8.2.1 Multi criteria analysis (MCA)*

The benefit of using an exploratory study as noted earlier is to use informal methods as noted by Williams (2003). Further, there is a flexibility as noted by Stebbins (2011) in looking for the data and an open-mindedness on where to find them. Based on these two aspects, the pre-research study will also involve open-mindedness to find data, by using past historical FYP goals and including them with the mean of the questionnaires. Further, as there is a possibility to use informal methods, Multi criteria analysis (MCA) will be used as the vehicle for the collected data analysis. It is noted below why this can be considered as an informal method of analysis. Thus, the exploratory study will also provide historical context to FYP's goals that are prioritized owing to the institutional culture of the Saudi government

As noted above along with the collection of questionnaire, another set of data will be used which is the five-year plan goals from 1970-2014. Combining these two sets of data is necessary. the study will use a framework to include and make use of these two data sets. The vehicle in which to carry this data is customized. The idea of the vehicle comes from a MCA framework. The details of this framework are detailed in the sub section below.



MCA aims to uncover the potential of success or not for a mega project.

Dimitriou et al (2010) define MCA as follows:

*“an appraisal framework used primarily where decision-makers are required to openly address a range of quantitative and qualitative based criteria and values from which conclusions are derived that reflect these multiple judgements.”*

They further add that MCA is used in the development of policies and plans and part of a decision-making process for MIPs. This is not the primary concern of the research; rather, this study is focused on uncovering development priorities.

Thus, the second criteria which is the impact of assessment will be presented by the historical occurrence of each goals.

Dimitriou et al (2010) note that the basics of a policy-led MCA include a weighting system and an impact of assessment for each goal to judge the final benefits against several developed criteria. Table 4.7 shows the MCA framework. Within this framework, the weighting is based on the average of each goal from the questionnaires. The questionnaires requested that respondents score the ninth FYP goals from 1 to 10. The weighting for each goal would be multiplied by an impact of assessment. The second criteria, which is the impact of assessment, is the historical occurrences/repetition of goals from their beginning in 1970 until the ninth plan in 2014, which is the second set of data. Historical occurrence is the frequency of repetition of a goal along the nine FYPs. The framework will conclude with a ranking of the Saudi leading goals from the Ninth Development Plan (2009-2014). It could be concluded that two criteria will be used for the framework which is:

- The goals' mean in the questioners.
- The historical/repetition occurrences of each goal.

The results will further enrich the contextual information of the Kingdom's institutional characteristics, by investigating which of these ranked goals might also be rooted in the Saudi institutional culture. Table 4.6 is an example of the used analysis framework.

**Table 4.6 MCA framework**

Goals	Weight (1-10)	Impact of assessment	Score	Ranking
Goal I	10	5	50	A
Goal II	10	2	20	C
Goal III	9	4	36	B

#### 4.8.3 Objective aimed at filling the knowledge gap

Three objectives were conducted under this category. The following sections provide the associated details.

##### *4.6.2.1 Conducting an explanatory study using a thematic analysis for interviews with key decision makers*

An explanatory study will be used through interviews with key decision-makers to understand the real practices and politics of the Saudi institutional setup for decision-making on MIPs and the effects of the FYP on MIP development. The research instrument comprises semi-structured interviews.

Thematic analysis is used to analyze these semi-structured interviews. The researcher chose interviews to gain explanations of the raised issues. The ability to interact personally with decision-makers showcases what they face of certain barriers and issues while developing mega projects within the FYP. Content analysis of governmental and non-governmental documents would be insufficient for answering the research questions, considering the very closed nature of the context and the lack of enriching documents that could provide critical content analyses. Furthermore, Harding (2013) notes that collecting

detailed information from a smaller number of people helps a researcher to understand “how people make decisions” and examine “the context surrounding them.” These two aspects are very important in understanding the Saudi context and why the researcher relies on qualitative interviews and qualitative analysis. In the same vein, Kumar (2011) argues that conducting semi-structured interviews benefits research on complex and sensitive areas, further noting that such interviews are useful for collecting in-depth information that is lacking or unavailable in the literature.

The analysis for the interviews will follow the procedures of thematic analysis. Figgou (2015) notes that thematic analysis is used to break down qualitative data into a cluster of small entities or conceptual categories and identify the relationships and patterns between themes, with the aim of delivering a theoretical explanation of the phenomenon under study. Braun and Clarke (2006) argue that thematic analysis is not usually attached to a pre-existing theoretical framework. It is important to allow such flexibility in order to efficiently work with the involved data. Braun and Clarke (2006) note that thematic analysis delivers insights and can provide answers to research questions.

Boyatzis (1998) defines the theme in a thematic analysis as follows:

*“A theme is a pattern found in the information that at the minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon.”*

He further argues that the themes can be generated from the raw data, the literature, or previous research. This study will generate the themes from the raw data.

Gomm (2004) notes that while conducting thematic analysis, the researcher must look for parts of the interview where it is evaluated commonly as well as

interestingly, categorized them as “themes” or codes, and then use these as headings when writing the research report.

Braun and Clarke (2006) note that thematic analysis for the interviews follows six steps:

- Becoming familiar with the data: This involves the repeated reading of interviews while searching for patterns and meanings. It must be completed before the coding process begins.
- Generating initial codes: Phase 1 gives the researcher a list of ideas about the data and what’s interesting about in the same. In phase 2, the researcher starts producing the initial codes that are in tune with the research questions and are deemed interesting.
- Searching for themes: In this phase, the researcher looks at the codes from a broader perspective and develops themes under which they can be categorized.
- Reviewing themes: Themes should be reviewed, as some might be considered as a whole theme while others might either be split into multiple themes or be joined to form a single different theme.
- Defining and naming themes: This phase will define and further refine the themes. It involves the recursive process of analyzing the data because the codes need to identify what aspects are pertinent to the overall research. This iterative process helps the researcher identify and define themes.
- Producing the report: Once the themes are fully worked out, the final phase involves a write-up containing a final analysis of the themes. The report is driven by data extracts that capture the essence of the themes within the data.

Thus, thematic analysis is used to break up qualitative data into smaller entities and then categorize them under several themes, in order to provide answers to

and explanations for the research questions. Hence, it could be argued that when approaching a smaller but important set of data, thematic analysis is the best possible analysis to ensure that the findings are as rich as possible. Moreover, each answer is manually coded several times in order to ensure that all possible related issues are coded, and each sentence is broken down for extracting information. Once the coding process is complete, the themes are developed to categorize each coded segment under them. Once all the themes are developed, all the answers are revisited for renewed coding under the developed themes. This coding involves the manual process of going back and forth until all interviews are properly analyzed. Further, the thematic analysis provides the flexibility of an interpretivist methodology.

Based on the analysis process noted by Braun and Clarke (2006), the thematic analysis used in the thesis is explained in detail in four steps:

1. The first step in the analysis was to translate the interview transcripts from Arabic to English, as seen in Table 4.7.

**Table 4.7 Translated transcript**

O1	
Q1. Does the ministry of planning include your insight and council when formulating the five-year plan?	Viewpoints of the government bodies are received but little communications is done after that
Q2. In a case of dispute while developing a five-year plan how is that	I haven't seen an issue of dispute before, but the problem with five year plan is that it can not force its goals on the ministry of finance, the ministry of planning is like an old

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resolved and who has the final decision?	wise man that gives council but are not law banding, the problem is that its goals are wishes and not realities.
Q3. Projects proposed on a Mega level (interviewer explains) are they always based on the five-year plan.	No, there are from our own vision, and with the support of the governor. And its time for the noncentralization for local governments. For example, the ministry of municipality and rural affairs is built on non-centralization vision.
Q4. When proposing a project how many government institutions must be negotiated with or proposed to?	Firstly with the governor and then the ministry of finance and sometimes we rely on the media as a tool of pressure on the ministry of finance
Q5. Who has the final say in the approval of your project or who are the final authorities that control its approval?	The ministry of finance
Q6. How can the current decision-making framework for Saudi Arabia be improved to foster long-term objectives of MIPs from your perspective?	There should be a focus and concentration on the strategic relationship between all projects and their placement. There should be a council that provides communication Between government bodies, but the problem of bureaucracy forces less communication.

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Q7. Who benefits/losses from this current institutional framework?	The country and the government official who wants to work and provide progress. There is also a benefit to the system and that the king can overcome the bureaucracy and lessen sometimes its effect.
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Q9. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?	The government I believe is not of great wealth.
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Q10. What would you recommend on for the five-year plan improvement?	Re-inspecting the relation between the finance, planning and the involved ministry while planning programs and projects and providing detailed budgets with clear priorities.
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2. After a careful reading of the interviews, basic coding was initiated for each answer to identify any material that relates to the research as seen in table 4.8. Then, all the interview transcripts were transferred to an Excel table for the second stage of coding. This process then created the initial categories for the coded text, as follows:

- Wealth.
- Investments.

- Five-year plan.
- Ministry of planning.
- Concerns.
- Decision maker.
- Influential government agencies/high-positioned governmental officials.
- Authority and power.
- Ministry of finance.
- Visions.
- Ambition.
- Shifts of development priorities.
- Support provided.
- Emergency or mega events.
- Funding issues.
- Relation and consulting between government agencies.
- Impacts of yearly reports.
- Studies of MIPs.
- Decision making for MIPs.
- MIP planning.
- Nature of centralization.
- Intervention by higher authorities.

**Table 4.8 Sample of coded interviews of the Shura Council members**

S1	S2	S3	S4	S5	S6(0)
Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: Do you feel the shura has enough expertise to deal with every study requests they receive?



<p>Mentoring and keeping up on them from a surveillance angle. There is no relation with other institutions from a consultancy angle. The cabinet in specific does not gain council in decision's. The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).</p>	<p>The shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority.</p>	<p>The shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country.</p>	<p>The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions. The shura also has the authority to request an audience with any minister of the for reviewing reasons regarding his ministry.</p>	<p>A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the shura does not track their recommendations.</p>	<p>The Shura Council is consisted and formed from of a diversity of expertise and jurisdictions, Education, Judiciary...etc. and discuss the information comprehensively and are open for debate.</p>
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3. The third process involved reviewing the initial themes, joining several themes with similarities in their coding under a single theme, and narrowing down the developed themes. This process generated the following sub-themes:

- Role in the approval process of MIPs and the five-year plan.
- Intervention on the approval of an MIP.
- Connection and communication between the institutions regarding MIPs and the FYP.
- The authority of institutions within the regulative and the executive authority.
- Power of the ministry of finance.
- Effects of wealth on the decision process.
- Improvements for the decision process.
- Contextual issues effecting MIP development.

- Ambitions related to MIP development.
- Issues in the strategic planning processes.
- Booming oil market's effect on MIP development.

4. This stage focused on developing the final themes, reviewing the current themes, and exploring any missing themes, or joining several themes under a single theme. It came with four final themes under which all the coded data are categorized under, as seen in Table 4.9.

**Table 4.9 A sample of the final coding process (categorized as themes)**

	Stakeholder involvement	Final decision maker	Issues and recommendations for the five-year plan and MIPs development	Initiation of MIPs outside year plan
S1	The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).			Due to very pressing need growth which has caused government to produce pr very fast rhythm. (when M produced out of the plan)
S2	shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority. The shura is more of a factory of regulations and policies. The shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet. we receive information of projects based on ministries reports for every past year.		I don't feel there is an importance on the five-year plan. The five-year plan on its current shape is very weak and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the five-year plan, a time schedule and a criteria to measure the success of the work. the five-year plan is great on paper but very weak in its core and not able to cope with the needs of the country.	

Themes were developed based on the coding of data. They are given as follows:

1) Stakeholder involvement, 2) Final decision maker, 3) Issues and recommendations for the five-year plan and MIPs development, and 4) Initiation of MIPs outside the plan's framework. Figure 4.1, 4.2, 4.3, and 4.4 showcase the

map of development of the final four themes. These four themes produced the variables considered in this objective of explanatory research.

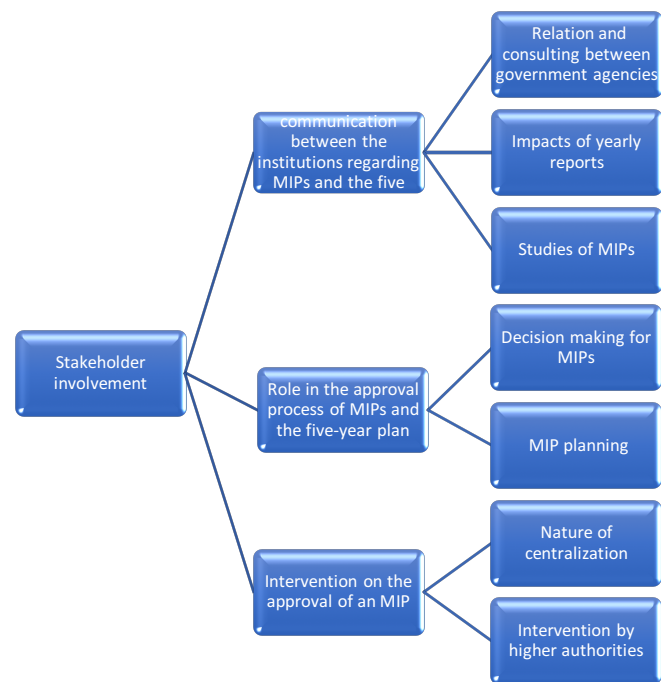


Figure 4.1 “Stakeholder involvement” theme development map.

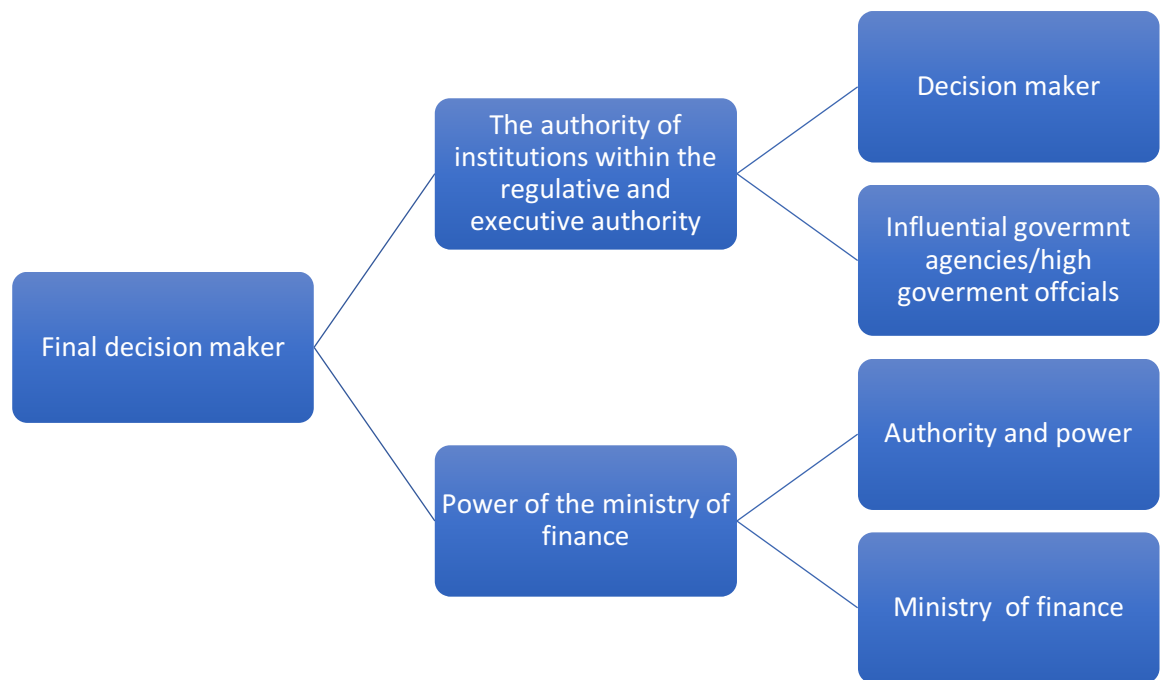


Figure 4.2 “Final decision maker” theme development map.

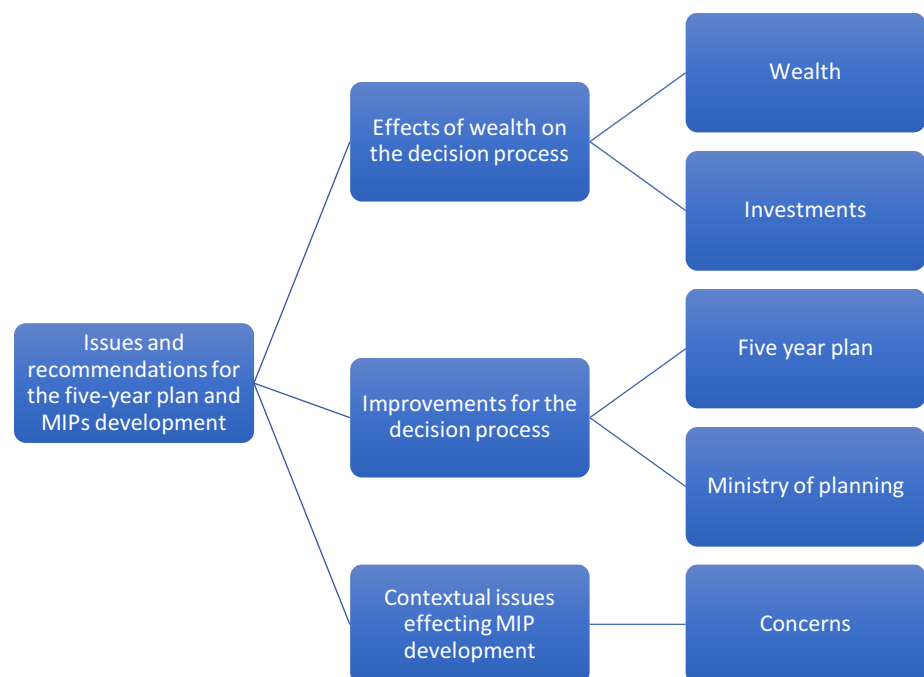


Figure 4.3 “Issues and recommendations” theme development process.

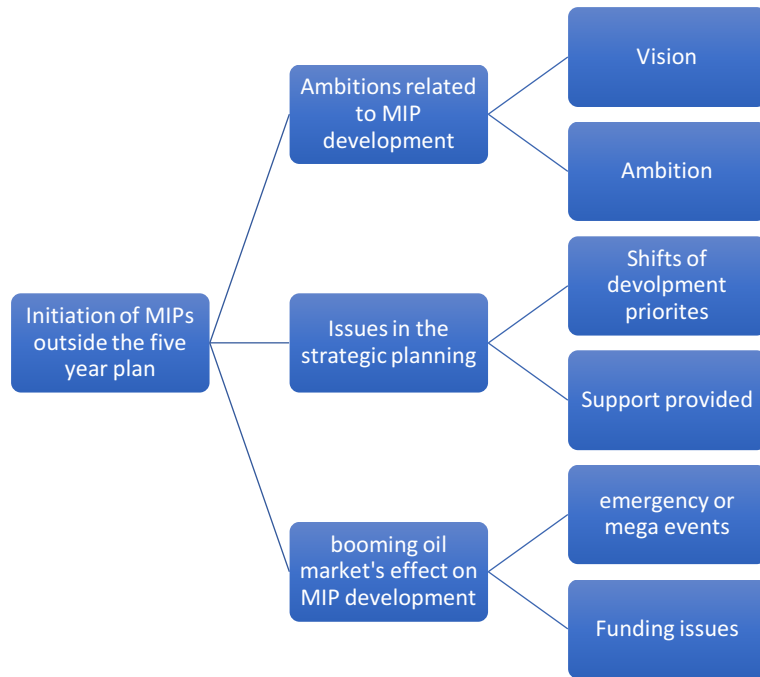


Figure 4.4 “Initiation of MIPs outside the five-year plan” theme development process.

- Semi-structured interviews

Questions were developed to consider the different occupations of interviewees and how each group would provide great insight into the research and facilitate the accomplishment of its aims. Thus, three main groups were created and each of them were given multiple sets of questions. The details are as follows:

#### 1. Council of ministers:

These can be split into four sets of question each with specific questions suited to interviewees positions. They are as follow:

- Set A (C1):

Q1. What would you recommend on improving the five-year plan?

Q2. Does the council of economics and development and the bureau of experts have the approval authority on MIPs?

- Set B (C2 and C5):

Q1: Being a member of the council and minister of transport do you require a form of approval to discuss a proposed project, if so does the approval comes from the ministry of finance or the council other arms such as the bureau of experts?

Q2: does the ministry rely on the five-year plan on lining the projects or on its own visions or the ministry of finance visions? Or is it a shared vision?

Q3: Mega projects that are not born from the five-year plan are they negotiated with the ministry of planning or the council of ministers

- Set C (C3B1):

Q1. What is the Bureau relation with other governmental institutions?

Q2. Is there a relation between the bureau and the five-year plan, and if so at what stage does it start?

Q3. What is the impact of the five-year plan on governmental MIPs and do they require an approval from the bureau?

- Set D (C4B2):

Q1: What would you recommend as an initiative for improving five-year plan process?

Q2: What is the role of the council of development and economics on the five-year plan?

Q3: What would you recommend as improvement's for the decision process of MIPs?

## 2. Shura Council:

This group was split into two sets they are as follows:

- Set E (S1, S2, S3, S4, and S5):

Q1: What is the relation between the Shura council and the rest of the governmental institution?

Q2: Do you feel the Shura has enough expertise to deal with every study requests they receive?

Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?

Q4: What is the impact of the five-year plan on the council agenda of talks?

Q5: Has the Shura ever suggested MIPs as solutions for the raised issues?

Q6: has the Shura ever intervened on MIPs on its approval process whether with a rejection or approval?

Q7: Is the council included in every MIP the country produces?

Q8: Does the council have the authority of rejecting MIPs developments?

Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?

Q10: Why do you believe that some MIPs are produced even though they are not included in the five-year plan?

- Set F (S6O1):

Q1: Do you feel the Shura has enough expertise to deal with every study requests they receive?

Q2. Are there time concerns when reporting back/mentoring on topics that are sent to the council?

Q3. Why do you believe that some MIPs are produced even though they are not included in the five-year plan?

Q4. Has the Shura ever intervened on MIPs on its approval process whether with a rejection or approval?

Q5. What is the process of the five-year plan budget, do the interested ministry gets involved?

### 3. Other governmental organizations

All four interviewees within group O had different semi-structured interviews as each of them came from a different governmental organization. They are as follows:

- Set G (O1):

Q1. Does the ministry of planning include your insight and council when formulating the five-year plan?

Q2. In a case of dispute while developing a five-year plan how is that resolved and who has the final decision?

Q3. When proposing a project how many government institutions must be negotiated with or proposed to?

Q4. Who has the final say in the approval of your project or who are the final authorities that control its approval?

Q5. How can the current decision-making framework for Saudi Arabia be improved to foster long-term objectives of MIPs from your perspective?

Q6. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?

- Set H (O2):

Q1. What is the relation between the council of economics and development and the bureau of experts on aspects such as MIPs?

Q2. What is the main goal of the council?



- Set I (O3):
  - Q1. Do the commission Projects flow in the same direction as the five-year plan intended?
  - Q2. What would you recommend for improving the five-year plan?
  
- Set J (O4):
  - Q1: What is the millstone for forming the five-year plan?
  - Q4: Who are the stakeholders that participate in planning the five-year plan?
  - Q5: When does stakeholders participate?
  - Q6: What would you propose as adjustments for the five-year plan?
  - Q9: Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?

These set of questions are designed to be expended along the interviews. The full transcripts of the expended interviews are found in appendices (B).

#### *4.8.3.2 Discussing the results of the explanatory research*

This objective is based on the results of the thematic analysis and is built upon what could be considered new knowledge with regard to the dynamics of the Saudi institutional set-up regarding decision-making for MIPs.

#### *4.8.3.2 Concluding the research with recommendations*

This objective will provide recommendations in regards to the planning and decision making for MIPs in the kingdom of Saudi Arabia. Recommendations will be based on the discussion of the thematic analysis outcome.

#### 4.9 Conclusions

The theoretical approach to the research involves an interpretivist handling of the design and analysis of the data. The researcher has attempted an explanatory research study, aiming to uncover contextual knowledge regarding MIPs' development in Saudi, explain the issues involved in the decision-making process, and uncover realities regarding the FYPs development. The data sources are centered around the decision makers of Saudi. As noted earlier, the interpretivist data needs to be at the center of the research, in the context of decision-making regarding MIPs in Saudi Arabia. The main goal is to generate new knowledge through an interpretivist research, knowledge regarding the Saudi institutional set-up of MIPs decision making.

## CHAPTER V

# The Peculiarities of the Saudi Context Goals and Vision

## 5. Introduction

The first chapter provided the aims and the research questions in which they laid a focus into understanding the contextual factors surrounding Mega infrastructure projects (MIPs) development and their national plans. Chapter two provided a contextual background and indicated that a national plan, which is the Five-Year Plan (FYP), is used to initiate mega projects and programs of the kingdom. Chapter three provided an argument, the importance of “context awareness” in regard to success of MIPs planning and development. Chapter four, which was the methodology and method chapter, argued upon an exploratory study to uncover the leading Saudi FYPs, before continuing to investigate the planning process of MIPs. Chapter five’s main aim is to explore the context of Saudi Arabia in regard to its leading goals. This chapter aims to better understand the goals and visions driving MIP development in the context of Saudi Arabia. This is provided as a needed pre-step before a further study on the decision-making process within the Saudi context as argued on chapter four. There are two sets of data in the research. Data (A) which is the questionnaires and Data (B) which are the interviews. Chapter five is an analysis of data (A) which is a questionnaire that asks to weight the importance of each of the ninth FYP plan goals from 1<10. The answers will be calculated to extract the mean and standard deviation, in the aim to rank various goals within the FYP.

Section 1 will introduce the data analysis method which is being used in order to carry out the analysis on the primary data. The aim of this analysis is to provide a ranking against each of the 13 goals with regards to their importance within Saudi development plans. Section 2 will provide a discussion for each high rank and an overall discussion on the low ranks of the Saudi goals. Section 3 will provide a further analysis of the data from a historical standpoint, using Multi Criteria Analysis (MCA). Doing so will help understand the cultural influence of

goal priorities. Section 4 will argue on a conclusion for the analysed data and what can be built upon it for further research.

### 5.1 The analysis framework

This section provides the final framework used and its analysis. Table 5.2 is the analysis of the questionnaires by calculating the mean and standard deviation. The ranking system is seen in table (5.1).

**Table 5.1 Ranking System**

	Ranking Group
Mean 9-10	A
Mean 7-8.99	B
Mean 5-6.99	C
Mean 1-4.99	Low Rank

**Table 5.2 analysis of Goals using Mean and Standard Deviation over 28 respondents**

Goals	Mean (1-10)	Standard Deviation	Ranking Group
1 To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights,	9.42	1.85	A

	maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.			
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	5.85	3.7	C
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	7.07	2.24	B
4	To achieve balanced development among regions of the Kingdom	7.28	2.46	B
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6.57	2.28	C
6	To raise the standard of living and improve the quality of life of all citizens.	5.00	3.18	C
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7.10	2.61	B
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5.17	2.81	C
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	4.78	3.33	Low Rank
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	4.71	3.35	Low Rank
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-	6.28	2.73	C

society institutions in advancing their developmental activities.

12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	3.60	3.14	Low Rank
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	4.92	3.50	Low rank

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## 5.2 Discussion

This section will provide a discussion of the results. The results will be spilt into:

Rank A, Rank B, Rank C and low ranks. Below is a discussion for each rank:

### 5.2.1 Rank A

Goal 1: “To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom”

The highest priority goal as generated by the framework is to safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom. This goal also had the lowest standard deviation which demonstrated that respondents were almost unanimous in their opinion.

This goal consists of two parts: 1) safeguarding Islamic values while confirming Sharia law and 2) ensuring security of the Kingdom against all odds faced by the unstable region. Safeguarding Islamic values while confirming Sharia law is not only a goal of the Saudi Kingdom, but it is also rooted in the Saudi identity. This religious aspect in the Kingdom, according to Alrebh and Eyck (2014), roots all the way to 1744 when Mohamed Ibn Saud and the religious cleric Mohamed Bin Abdul-Wahhab made a pact to built a state upon the fundamentals of Islam and

Sharia law. Thus, the Saudi government prides itself among Muslims as one of the few Islamic states left in the world. Thus, “consolidating the Islamic identity of the Kingdom” is a part of this goal. Albassam (2011) notes that both the Quran and the Sunnah (the Prophet actions and speeches) are taken as sources of facilitating the law in Saudi. They use both as the founding of the country’s constitution.

According to Albassam (2015), for the last half century, this aspect has helped the Kingdom to maintain great ties between the government and the traditional religious leaders as a way of affirming their role as part of an Islamic rule by the Saudi government.

The second part of the goal is to enhance national unity and security of the Kingdom. The priority of this goal is also evident by examining the allocations of budgets from 2002-13 as seen in Figure (5.1). As it shows, from all the sectors of the Saudi government’s budget, the majority goes to its defence and security. This approach can be explained by the fact that the Kingdom of Saudi Arabia is located in a tense region under constant conflict; thus, defence and internal security is an important theme. Furthermore, the risks of the hostile state of the region won’t be fading away soon. Noguera-Santaella (2016) predicts that as oil, which is the economic engine of Saudi, becomes more and more scarce, military conflicts will intensify, reflecting the fragile state of the Middle East. In reference to the hostile context of the Middle East, Tempest (1992) argues:

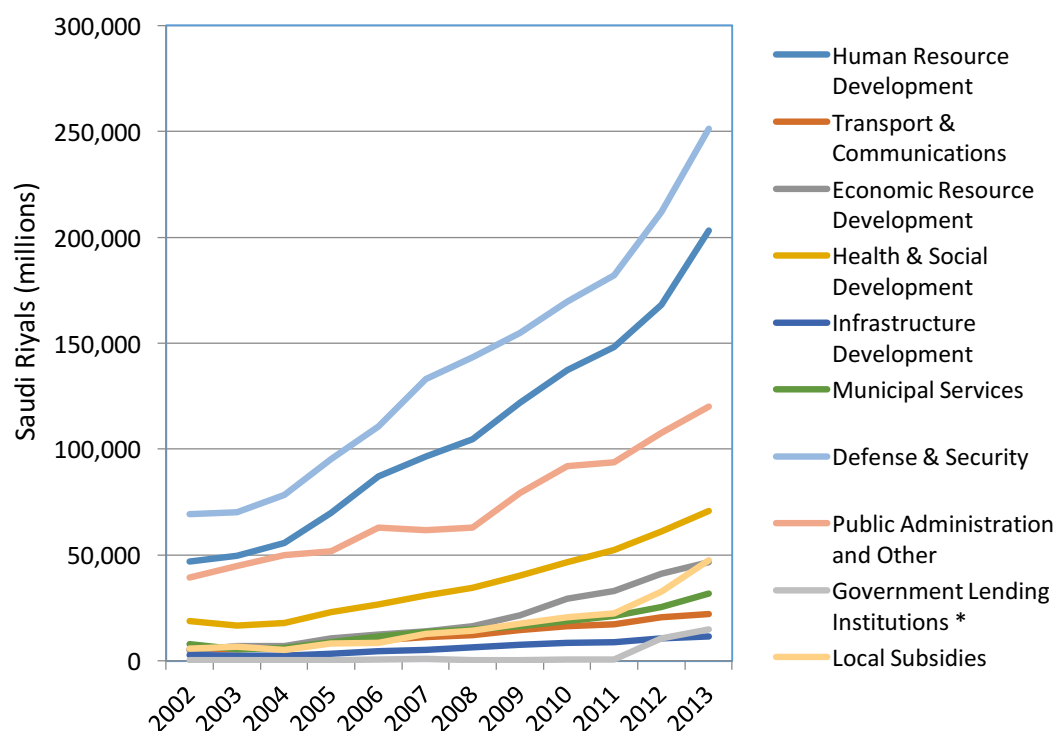
*“As the superpowers disarm and dump increasingly sophisticated weapons and the rest of the world’s arms manufacturers, stripped of traditional markets at home, now queue to be allowed to pour their product into the Middle East, the trickle is turning into a flood. Sooner or later, one country or another which sees the narrow comparative advantage will want to use the weapons.”*

Garfinkle (2003) argues that geography is destiny, a notion that he extracted from the Greek philosopher Strabo (64 BCE–23 CE). He further argues that



Napoleon Bonaparte's statement that "the politics of a state is its geography" is still true and that the Middle East provides evidence for such thought. Saudi Arabia's geographic location has forced the government to be in constant defense and empower such a goal. There is a price to pay for their security. Berti and Guazanski (2014) argues that, in comparison with the rest of the region, the Gulf states are considered the most stable. Its geolocation has provided it with great riches in the form of oil reserves, but it has also been cursed by the unstable neighboring countries of the Middle East. Chapter two showed how its projects and plans funding shifted as a reaction to defending itself and its Islamic identity. The constant jump in priority to cater to this goal has made planning in Saudi a very difficult practice with harsh realities.

The second part of this goal also represents a focus on human rights and the maintenance of social stability. As the Kingdom approved major spending on the defence sector to overcome external threats, it also aims to ensure social stability and the preservations of human rights to overcome internal impacts. Such as the establishment of the Human Rights Commission by the Saudi government in 2005 (Human Rights Commission, 2019). Thus, why "human rights and maintaining social stability" was seen in this goal.



**Figure 5.1: Saudi Arabia governmental budgets (2002-2013)** Source: Saudi Ministry of Finance, 2015.

#### 5.2.2 Rank B

- Goal 4: *“To achieve balanced development among regions of the Kingdom”*

The Kingdom of Saudi Arabia is split into 13 regions. The government wants to achieve balanced growth between all these regions. As the ninth FYP (Ministry of planning, 2015) notes on this goal:

*“...there are still disparities in economic activity among the regions; mainly due to disparities in potential. Although declining gradually, internal migration from rural to urban areas is evidence of such disparities. This migration has led to immense economic, social and environmental pressures in the cities, which required more public resources. Hence, stimulating economic activity in the least*

*developed regions, with due consideration to their particular characteristics and comparative advantages, poses a major challenge in the coming years”*

the Saudi economical structure is split into three economical engines: the western, centre and eastern section of the country, covering few regions. The Eastern part of the country has the huge reserves of oil. figure 5.2 showcase an oil field in the eastern provenance that has benefited the region with development and jobs. As Alhowaish (2015) notes:

*“From the time that oil was discovered in the Dammam area of Saudi Arabia in 1937 to the present, development of the Dammam Metropolitan Area (DMA) has been closely linked to the mobilization of natural, capital, and human resources, transforming it into a major supplier of fossil fuel energy to the rest of the world.”.*

Albassam (2015) argues that this situation is natural in less diversified economies as job creation and development tend to concentrate around the urban areas surrounding oil fields, mineral processing plants and mines.



**Figure 5.2 Oil fields in Saudi**

**Source: Forbs.com**

The centre holds Riyadh the capital. Al-Asmari (2008) notes that Saudi used a huge sum of the oil revenues in generating jobs for the public sector as a response to reducing unemployment that also caused high government wage bills. These are highly concentrated in the capital. All ministries and most government institution are built within Riyadh including the Council of Ministers and the Shura council as seen in Figure 5.3. Albaker (2015) notes that a huge portion of the government expenditures go to paying salaries. This has created an economic engine run by government spending on creating and expanding government institutions to generate jobs in the public sector.

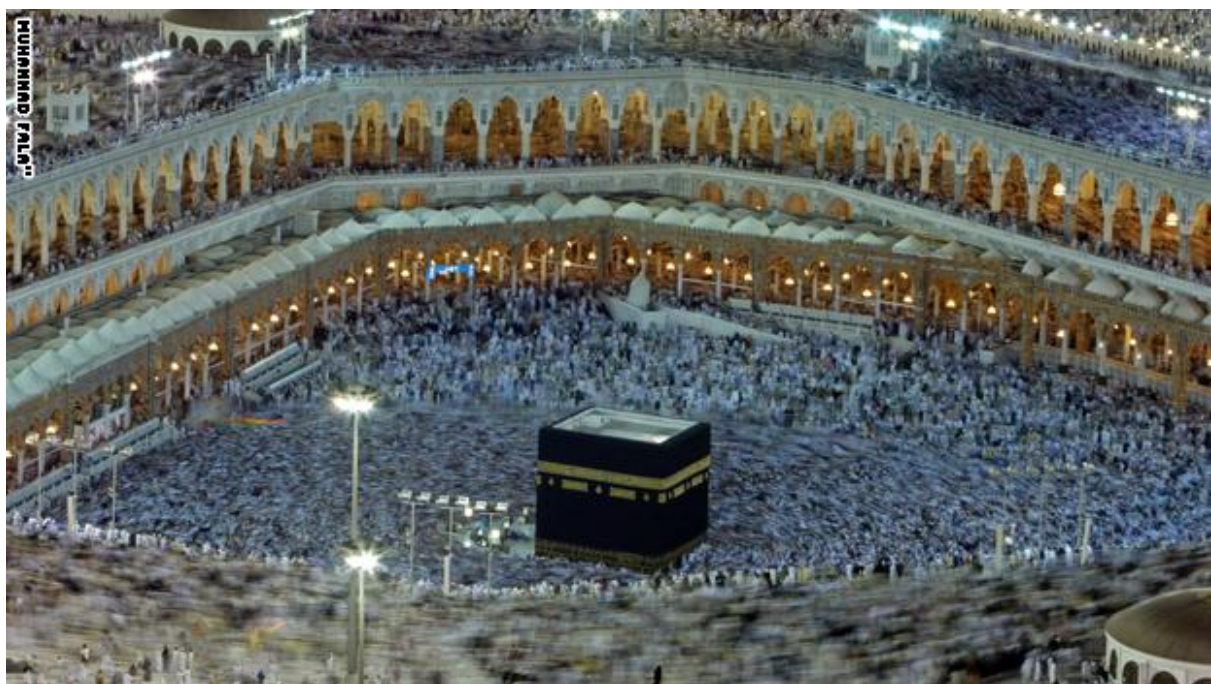


**Figure 5.3 Shura Council building in Riyadh**

**Source: aawsat.com**

The Western province benefits two regions, Mecca and Madinah (Medina). Mecca is considered the birth of Islam and has a strong relationship with every Muslim. In Mecca, the holiest House to a Muslim is “Al Kaaba” as seen in figure 5.4 which commands a yearly pilgrimage to Mecca. Medina has the Prophet’s Mosque and thus gives the city great Islamic significance. The government has favoured Mecca and Madinah with mega projects around the holy places which are visited by millions of Muslims each year. These two aspects have greatly

benefited the region by generating religious tourism while also focusing government investment in the infrastructure. It has also helped with the growth of areas surrounding Mecca and Medina, such as Jeddah. For example, Jeddah which is the nearest city to Mecca, has enjoyed spillover and created tourism that greatly relies on Mecca pilgrimages, and many of the government institutions are located there. Aljoufie (2014) notes that between 1970 and 1980, Jeddah was picked up by the government with the country's oil boom by investing in a new airport location and transportation infrastructure due to its strategic location between Makkah and Medina.



**Figure 5.4 “Al Kaaba” in Mecca**

**Source: Arabic CNN**

Albassam (2015) links a balanced growth to a diversified economy as he explains that one of the benefits of a diversified economy is the balanced development between rural and urban areas. Thus the priority of these goal can be also linked to diversifying the economy.

- Goal 7: *“To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages”*

One of the goals that has been ranked (B) is diversifying the economy. Chapter two showcased that the Kingdom is highly dependent on natural resources, which comes with certain difficulties. Jia et al (2017) argues that crude oil prices face high volatility between booming and crashing, creating a violent market. Its prices are the embodiment of trading results within the global market, which raises the risk for countries that are dependent on this natural resource. Samargandi et al (2014) adds that economic performance in countries that rely on natural resource will not be the result of domestic and economic development but rather determined by global factors, leaving such countries with little control over their future.

According to Ahmad (2015), diversification benefits reduce risks generated when focusing on a single economic sector, provide stability in hard times, and act as a tool for business and economic development. Hvidt (2013) argues that diversification in the Gulf countries must be taken in the broadest sense. He adds that it must overcome the problems associated with volatility in the price of oil, the rising concerns of employment problems and insuring sustainable income levels for future citizens. He further notes that national plans focused on diversifying the economy have shown slow progress and minor improvements. Albassam (2015) affirms these views in his study on the Saudi goal of revenue diversification. His conclusion was based on analysing oil as a percentage of GDP, private sector as a percentage of GDP, oil as a percentage of the country's exports, and oil revenues as a percentage of total government revenues over the period of almost 50 years since its mention in the first FYP (1970) until (2013). His study concluded that the diversification attempts did not cause a change in the economic structure in the way of removing oil as the dominate sector of the

economy. He notes that all the variables studied show that Saudi is still a long way from diversifying its economy. He argues that there is a critical need for a clear plan that details the process of diversifying and supporting non-oil sectors because the current national plans are showing low levels of success.

He further adds that there might be a link between resource curse theory and Saudi Arabia:

*“Conversely, many countries that draw a high percentage of their national income from a natural resource fall into what is known as the “resource curse,” where the country relies almost exclusively on that resource and does not make sufficient effort to diversify its income resources, which has a negative influence on its economic development.”*

Albassam further adds that the private sector’s dependence on government spending negatively affects the role that the private sector should play in diversifying the economy. Albaker (2015) further adds that the non-oil sector activity is concentrated in: construction, services, and importation and marketing of foreign products. The construction sector, which heavily relies on government spending, is the largest between them. Thus, it is affected by the boom or crash of oil. Samargandi et al. (2014) argues that the increase in the non-oil sector progress or loss is the result of fluctuation in the world’s oil prices.

In considering the United Arab Emirates, Farzin (1993) explains that the reason rich oil countries rely heavily on oil is because it has become a comfortable source of income. He further notes that any fluctuation in the petroleum market will jeopardize domestic investments, reducing the success of their national plans. Table 5.3 shows how the overall revenue in every Gulf Cooperation Country (GCC) shows great reliance on the hydrocarbon sector as state revenue.

**Table 5.3 GCC oil revenue in 2014  
Fund (2016)**

**Source: International Monetary**

	Oman	UAE	Qatar	Bahrain	Kuwait	Saudi Arabia
Oil	%87.9	%63.5	%80.3	%86.2	%79.8	%76.8
Revenue						
(Share of						
total						
fiscal						
revenue)						

Nevertheless, it is interesting to mention that within the UAE, Dubai, one of its seven emirates, has seen a greater diversification approach compared to all the GCC plans and efforts. Hvidt (2013) notes that Dubai has staged itself as business-friendly and open to foreigners in business and in society in general and being provocative with a range of new firsts to the region. He describes the ‘Dubai model’ of economic development as:

- (1) Government-led development.
- (2) Fast decision making and ‘fast-track’ development.
- (3) Flexible labour force through importing expatriates.
- (4) Bypassing industrialization and creating a service economy.
- (5) Internationalizing service provision.
- (6) Creating investment opportunities.
- (7) Supply-generated demand.
- (8) Market positioning via branding.
- (9) Development in cooperation with international partners.

Nevertheless, Horshug (2016) argues that Hivdt’s term *Dubai-model* is based on market liberalism, free trade, economic openness, pro-globalization and pro-



business, and would struggle to be implemented in Saudi because there needs to be a religious and cultural revolution. He argues that since the religious aspect is considered an important factor within the context, any changes should be spearheaded by the religious scholars as they would contribute to fundamental changes in the closed nature of Saudi.

- Goal 3: *“To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare”*

Achieving sustainable economic and social development is, of course, the leading global goal of any government. It is nevertheless an attachment to other goals which are diversifying the economy and balancing growth. This goal can be argued that it is linked to the policy of economic diversification. The B rank goals show an appetite toward economic development that further rises the importance of diversifying the economy and not rely heavily on oil revenues.

### 5.2.3 Rank C

- Goal 5: *“To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services”*

Enhancing human development has been a recurring goal that translates as a concern to the Saudi government. As noted in Chapter two, the first FYP initiated a policy to reduce the gap of Saudi and non-Saudi employees as they aim to develop the human resources, a measure to reduce the gap started by the “Saudization” program decades ago. Looney (2004) notes that it is a development strategy aiming to replace foreign workers with Saudis. As every plan aims to reduce that gap (Ministry of Planning, 2014), data show that in 2006, non-Saudi employees represented 54% of the whole, while in 2015, this proportion rose to 56% (Central Department of Statistics and Information, 2016). But the increased difference in 2015 can be argued is due to booming oil prices

that also created a boom in jobs as table 5.4 illustrates that. Creating a hike in the number of jobs to Saudi and non-Saudi employees from 2008 – 2012.

Loony (1991) further argues that one of the main issues facing the Saudi human capital is skill mismatch. He notes that attention to this mismatch must be part of the long-term goal of the Saudi Diversification of revenue. He argues that agriculture, mining and solar energy will require technically-skilled manpower. Corneo (2011) further adds that economic diversification will rely on human capital. He notes:

*“The single most relevant feature of the Saudi economy is its heavy reliance on an exhaustible resource, oil. That feature implies that the long-term prosperity of Saudi society crucially depends on its ability to save and prepare for a time when oil will have become economically irrelevant. Over the next decades, a transition from an oil-based economy to a diversified knowledge-based economy should be accomplished. Along the way, natural wealth has to be transformed into man-made wealth, i.e. physical capital and human capital embodied in the Saudi population.”*

This goal further aims to provide healthcare services. Translating the Kingdom’s vision that human capital investments are not only focused on training and education but also to provide health and well-being to its citizens. That is why the Kingdom provides free healthcare service to its citizens

**Table 5.4: Number of Saudi and non-Saudi employees. Source: Central department of Statistics and Information.**

	Saudi employees	Non Saudi employees	Total
2006	3,431,573	4,091,414	7,522,987
2007	3,584,751	4,181,597	7,766,348
2008	3,678,600	4,278,232	7,956,832
2009	3,837,968	4,310,024	8,147,992
2011	4,143,071	5,792,463	9,935,534
2012	4,397,371	5,992,953	10,390,324

2013	4,631,117	6,003,616	10,634,733
2014	4,926,184	6,141,489	11,067,673
2015	4,944,709	6,285,156	11,229,865

- Goal 11: *“To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities”*

The goals of developing regulations aimed at raising efficiency and improving performance, working towards entrenching transparency and accountability, and supporting civil society institutions in advancing their developmental activities ranked (C). This goal should be prioritised, as much as possible, in order to continue socio-economic and institutional reform. As major issues in the context can be better solved and rooted out by an investment in the institutional capabilities. Chapter three has noted on the importance of institutional investments on its capabilities and that such investments can great better success opportunities for Major projects.

- Goal 2: *“To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently”*

Developing the holy places and improving the services for Hajj and Umrah could be regarded as sub-objectives of safeguarding Islamic teachings and values, which scored a higher rank. Nevertheless, this goal could be placed in the plan, because there has been a rise in the number of holy places development and investments since the Eighth FYP. It could be argued that this goal will continue in future plans until the mega projects in Mecca concludes.

- Goal 6: *“To raise the standard of living and improve the quality of life of all citizens”*

Raising the standard of living and improving the quality of life of all citizens was part of several FYPs, which is evident from the free education and medical services provided to all citizens. Hvidt (2013) notes this aspect with regard to the Gulf Cooperation Council (GCC) countries:

*“The allocation state has pampered its nationals with cheap or free housing, land, low-interest loans, cash hand-outs, free schooling (even abroad), attractive pensions, subsidized water and electricity, and freedom from taxation.”*

It could be argued that even though this specific goal ranked (C) and contradicted Hvidt’s (2013) argument that GCC countries keep allocating a great budget to such goals, it signals a new approach adopted by the government, as the funds spent on citizens hit the budget ceiling. There may be a new approach to the government by involving citizens with the expenses, and burden of spending. For example, in 2018, Saudi Arabia will impose a new VAT law on the 1st of January and become the first of the six Gulf Arab states to do so (Avalara, 2018).

Goal 8: *“To move towards a knowledge-based economy and consolidate the basis of an information society”*

The goal of moving towards a knowledge-based economy was ranked (C). Although it would benefit the economic diversification goal, and could be considered as being part of the policy of diversification. As the ninth FYP (Ministry of planning, 2015) notes:

*“Under the Eighth Development Plan, several major public and private projects in various regions of the Kingdom were implemented. Paving the way to a knowledge-based economy, these include investment projects aimed at*

*diversifying the economic base and achieving balanced development among the regions of the Kingdom, such as mining, ICT and petrochemical projects, the costs of which are estimated to reach around SR54 billion in 2009”*

#### 5.2.4 Low ranks

Low-ranked goals would also develop a certain understanding around the characteristics of the Saudi government, because they showcase certain views regarding political, environmental, economic and social views. This section goes over each low-ranking goal that are:

- Goal 13: *“To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it”*

Although developing the sector of Small and Medium Enterprises scored the lowest in the ranking system. Improving this sector would help raise the living standard goal and contribute to the diversification efforts. Future plans will showcase the importance of this goal if it persists.

- Goal 10: *“To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development”*

The environmental vision of the government can be viewed with the help of this specific goal. The goal ensures rational utilization of natural resources such as water and protects the environment. It could be argued that the low-ranking of such a goal reflects great concern. The already natural resources of water are very scarce. The goal can be split into two aims. First, rational utilization of natural resources such as water and fossil fuels. Second, protecting the environment to combat climate change. The main issue within the Saudi context is that its energy sector is heavily reliant on fossil oil. Ramli et al (2017) argue that Saudi Arabia needs to maximize the utilization of other sources of energy generation that are less dependent on fossil fuels. They also note that fossil fuels

are limited and finite. It is projected that Saudi oil reserves will be exhausted within 100–150 years. What is more troubling in the Saudi context is the burning of fossil fuels release greenhouse gas (GHG) emissions, leading to global warming and climate change. AbdulMujeebu and Alshamrani (2016) noted that the world economic growth is expected to raise the oil demand from 80 million b/d to 120 million b/d by 2030, causing an energy crisis that will have negative effects on the national development of Saudi Arabia, as fossil fuels will be in short supply. This projection makes it imperative for Saudi Arabia to reduce dependence on fossil fuel as far as energy consumption is concerned, and start practicing policies that benefit in the long-term. Alshammari and Sarathy (2017) add that Saudi Arabia already is the 11th largest emitter of CO<sub>2</sub>, generating 494.82 MTon of CO<sub>2</sub> in 2014, and its oil consumption, too, is rising at an alarming rate. The Saudi government is greatly affected by the environmental concerns, as Fettoh and Sen (2015) argued that climate change mitigation measures present a risk to the Saudi economy. The country's ability to collect revenue from the hydrocarbon sector will become lower, according to them, as more global pressure rises to change the energy sector.

Sustainable development and measures will also help in preserving the water sources in the kingdom. Droogers et al. (2012) added that water resources in the Middle East and North Africa are already scarce, and climate change will continue to escalate this issue, if not responded to such risks. Furthermore, DeNicola et al (2015) noted that Saudi Arabia's poor water management is leading to severe consequences that will have a progressively negative effect on climate change. The availability and quality of water resources will become a struggle in Saudi Arabia.

The water resources in the kingdom, as explained by Zaharani et al. (2011), are split between surface and underground deposits. The surface deposits have an estimate of 2,045 million cubic meters (MCM) due to rainfall in the west and south-west of the country. Groundwater is found in the basement rocks holding

aquifers, some of which are naturally replenished, while others are non-renewable. The third water resource is desalinated water that caters to 48 percent of the municipal requirements. Chowdhury and Al-Zahrani (2015) noted that the seasonal precipitation is the source of surface water in Saudi Arabia. They added that the rechargeable aspect of groundwater is not considerable due to evaporation. Furthermore, the groundwater in the deep aquifers is non-renewable. Alkolbi (2002) opined that Saudi Arabia, geographically, lies in the driest regions of the world, where depleted water supplies are a constant threat to life and development. Saudi Arabia is a large country, spread over 2,250,000 square kilometres, with no rivers or surface water. He argued that Saudi Arabia is a poor country in terms of agriculture as a result of the combination of high temperatures and increased evapotranspiration, making water availability very scarce.

Zaharani et al. (2011) agreed with Alkolbi's (2002) view on the poor conditions of agriculture and the scarcity of water, with limited fresh water-supplies, low annual rainfall, and no perennial rivers. Zaharani et al. (2011) noted that although the capacity of fresh water is very limited, yet the current policies allow the practice of desert agriculture. They argued that this approach has raised the volume of water for irrigation from 6.8 km<sup>3</sup> in 1980 to 21 km<sup>3</sup> in 2006. They also said that if this approach continued, it will deplete fossil fuels and deep aquifers within 25 years. Rambo et al (2017) believe that that the agriculture sector has become unsustainable, as it consumes 3/4th of the water present in the country. Al-Zahrani and Baig (2011) said that the scarcity of freshwater resources must be considered as a major challenge to biotic life in Saudi Arabia. Water scarcity is disadvantaged further by the decrease of per capita availability.

Alkolbi (2002) argued that desalination plants impose a political security issue that makes Saudi Arabia vulnerable to missile attacks in the event of military conflict. Rambo et al (2017) say that Saudi Arabia's use of desalinated water

approach to ensure demand and compensate for the low water reserves has created a new challenge. This approach requires high-energy input, consuming more than half of the domestic oil consumption, and creating a dilemma where water availability is linked to oil supply. Rambo et al (2017) conclude that desalination water is not cost-effective and not sustainable in its current form in the long run. They add that if Saudi Arabia continues with this rate of high-energy consumption of water, and electricity, it will cost them three million barrels per day of crude oil exports by the end of the decade opposed to half a million barrels per day in 2016 as noted by AbdulMujeebu and Alshamrani (2016). Rambo et al (2017) say that the implications of the current policy regarding water source will transform Saudi Arabia into a net oil importer by 2038, stressing the need to curb domestic consumption. Rambo et al (2017) further explain the critical issue of water sources

*"The systemic structure of the water-energy nexus in Saudi Arabia is far from sustainable. Electricity and water consumption are both rising at rates that exceed the international standards. Desalination is major energy consumer in Saudi Arabia, with production expected to increase substantially in the coming years, and substantial improvement in energy efficiency likely to be a significant factor in facilitating its efficiency in Saudi Arabia. Moreover, the growth of cities and increased population, coupled with the rise in the living standards, has resulted in an unappreciated demand for water, and caused domestic and industrial water consumption to increase significantly. In light of these facts, the present path of water, energy, and electricity consumption in Saudi Arabia is not sustainable in the long run."*

- Goal 12: *"To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries"*

The ranking allocated to this goal, based on the ranking by questionnaire respondents, shows that strengthening economic cooperation with GCC and Arab states is not of higher importance in Saudi context. One of the reasons



behind this, as argued by Hvidt (2013), is that the GCC's cooperation lacks effective coordination and enforcement of economic policies among the member countries. This indicates that the priority or ranking of this goal is expected to be low until appropriate measures are in place which ensure GCC wide policies are not only devised but also apply them uniformly across member states.

*Goal 9: "To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships"*

The goal of enhancing the role of the private sector in socio-economic and environmental development and producing public-private partnerships, although ranked low, could rise in priority once the oil sector starts to decline. This goal could be argued that it is linked to the policy of diversification.

### 5.3 The institutional culture effects on goals prioritization

The questionnaire data provided a ranking of the Saudi goals that can further enrich the contextual information about the Kingdom's institutional characteristic. This section of the chapter aims to investigate which of these ranked goals might also be rooted in the Saudi institutional culture. Duffield and Whitty (2015) note that it is important to understand the people factor in institutions that govern mega projects and in what the people believe. Bony (2010) argues on this aspect as he notes that management and national culture cannot be separated and that they impact each other. Bony further argues on this subject that project management is not only governed by autonomous actors and objective practices but are also affected by national culture and there is a need to make a distinction between a dominant and the universal practice of management. He further argues that focusing on cultural elements that may affect the project management practice in a certain context is very important.

Vaisey and Valentino (2018) also argue on another important aspect of the cultures within governments and their institutions because they also influence the decision-making process.

Thus it is necessary to understand the extent to which the higher priority goals are a part of the institutional culture and its characteristic. This perspective arises from the historical occurrence of these goals over the span of almost fifty years starting from the first FYP in 1970 till the ninth FYP that lasted till 2014. Table 5.5 shows the ranking system and Table 5.6 shows the MCA analysis.

**Table 5.5 Ranking system**

Score	Ranking
70 and above	A
50-69	B
30-49	C
20-29	Low Rank (D)
19 and below	Low Rank (E)

**Table 5.6 MCA analysis**

Goals	Weight (1-10)	Historical occurrence (0-9)	Score	Ranking
1 To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights,	9.4	9	84.6	A

	maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.				
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	5.9	2	11.8	E
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	7.1	2	14.2	E
4	To achieve balanced development among regions of the Kingdom	7.3	5	36.5	C
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6.6	8	52.8	B
6	To raise the standard of living and improve the quality of life of all citizens.	5	5	25	D
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7.1	9	63.9	B
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5.2	2	5.2	E
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	4.8	5	24	D
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	4.7	2	9.4	E
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-	6.3	1	6.3	E

society institutions in advancing their developmental activities.

12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	3.6	6	21.6	D
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	5	1	5	E

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## 5.4 Conclusions

This chapter, as indicated in its introduction, aimed to undertake an exploratory study to gain a better understanding of the goals and visions driving MIP development in Saudi Arabia. This was achieved by utilising a limited dataset of responses from 28 representatives from the executive regulatory bodies and a combination of simply applied techniques. The outcome from this exploratory study is an understanding of the leading goals in the Saudi context. The approach to providing this understanding was twofold. First a non-normalised ranking based upon mean and standard deviation of the judged weightings of each goal was determined. Secondly, a simply applied form of Multi-Criteria Analysis (MCA) was used on the historical occurrence of the goals to determine their link to the institutional culture of Saudi governmental institutions.

It could be argued that the techniques used to provide this analysis are crude and unsophisticated. For instance, should the data used to provide a ranking on mean and standard deviation be normalised? Or is the implementation of MCA used here inappropriately applied to an attribute of these data (i.e. historical occurrence) that is not necessarily a key indicator of importance? These would be valid arguments and it is quite likely that more detailed and rigorous methods could be applied. But, as discussed in chapter four, the flexibility of exploratory studies can provide a validation via the use of informal analysis or simple analysis

methods such as the mean and standard deviation of non-normalized data or the applied simplified version of MCA on the collected data. The exploratory direction also accepts an open mindedness of collecting and using data such as the use of historical occurrence.

Instead, a more appropriate question to ask is whether the methods used have provided the understanding that this chapter has intended to seek? What has been provided by these analyses is quite straightforward - a clearer understanding of the leading goals has now been obtained, informing the research on the peculiarities of the Saudi context and its goals and visions. This is an important pre-step for the main body of research, providing as it does important knowledge surrounding the studied context.

A conclusion is therefore drawn that the relatively simplistic nature of the data gained for this chapter does not warrant a more sophisticated undertaking; as can be seen the two techniques do not show dissimilar outcomes; in other words, the means have suited the ends.

These outcomes are as follows. The result of the data analysis using mean and standard deviation of the ranking concluded that the high ranked goals between (A) and (B) are:

- Upholding Islamic values and the security of the Kingdom,
- Diversifying the economy,
- Balancing growth across the Kingdom
- Sustainable economic and social development.

Alternatively, using the MCA analysis on the historical occurrence the results were for goals that ranked (A) and (B):

- Upholding Islamic values and the security of the Kingdom,
- Diversifying the economy
- to enhance human development.

In comparing these two methods the shared high ranked goals between these two analysis methods are as follows:

- “To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom”
- “To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages”

Being ranked high in the two analyses provides the conclusion that these are likely to have become part of a cultural vision within the Saudi institutions, which greatly increases their importance. This result is part of the exploratory segment of the research. It gives a better understanding of the institutional characteristics, and sheds light on what they believe to be the priorities in the decision-making process. This aspect showcases the importance of political and economic projects and might rise them in priority levels.

These analyses do not just indicate what the most important goals are. This study allows an interesting view of what are considered the shared low rank goals, which are as follows:

- “To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships”

- “To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development”
- “To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries”
- “To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it”

This result provides an insight into project developments linked to these goals allowing further understanding of the Saudi institutional thinking. It seems clear that MIPs of great investments with environmental goals might face lower prioritization in project selection. Further major economic projects linked to these goals above might still face lower prioritization than other projects attached to higher ranked goals found in this chapter.

As noted above this chapter has provided the analysis of the collected data of 28 respondents. Due to the simplicity of the techniques used and the low number of respondents makes it inappropriate to build upon for the targeted gap of knowledge and is considered a pre-study that only provide a better understating of the studied context and general knowledge. It does not provide deeper insight into the decision making process that can be used to fulfil the gap of knowledge and only considered a pre-step to the research. The following chapter, chapter six will provide the analysis of a stronger data set of 15 interviews with key decision makers and their analysis. Chapter Seven will use the results found in chapter six to build upon that new knowledge in regards to the principal area of study: the decision making process of Mega Infrastructure Projects in Saudi Arabia

# CHAPTER VI

## Qualitative Analysis of Interviews with Saudi Decision-Makers



## 6. Introduction

Chapter six is an explanatory research in understanding the institutional set up of decision-making for Mega infrastructure projects (MIPs) and the Five-Year Plan (FYP). This aim is based on fulfilling a gap of knowledge, which was based on Chapter two and three's findings. Chapter six will provide an analysis of qualitative data collected for the research. The qualitative data consists of a set of 15 semi-structured interviews with key decision makers within the Saudi government. These interviews were gathered from five Council of Ministers members, six Shura council members and four high government officials (refer Chapter four for further details of the data set). These interviewees therefore offer valuable inside views from within a very closed context and allow a critical development and understanding of the foundation of contextual knowledge regarding the decision-making process of MIPs and the FYP that would very hard to extract with other means.

The analysis provides coding that help on uncovering contextual knowledge surrounding the institutional set up of MIPs decision-making which chapter seven builds upon.

Section 1 will go over the coding used for the analysis briefly and provide the analysis for the chapter. Section 2 will present the analysis and its coded data. Section 3 will conclude Chapter six with what aspects within the coding that can proved a basis for chapter sevens discussion.

### 6.1 Thematic analysis

Formal and governmental publications in Saudi Arabia demonstrate some vagueness towards the MIP decision-making process. Thus, understanding the contextual aspects of decision-making for MIPs in Saudi requires interviewing members of the executive and regulative authorities and other high-ranking governmental officials. Chapter two overviewed the decision structure for the

FYP and found that the main decision makers for the FYP were the members of regulative and executive authorities, specifically the Council of Ministers and the Shura Council. Thus, the pool for extracting data regarding the decision-making process was limited to the regulative and executive authorities.

The Saudi context of MIPs is led by public funds and has not grown into a neoliberal approach. The private sector is still not a participant in infrastructure building. For example, all airports and transport infrastructure are funded and developed by governmental institutions. Because the private sector is not involved in infrastructure development and the closed context of building up government institutions is based on appointing rather than a voting system, bringing out and focusing on insider views is critical to this research. This pragmatic approach will provide unique insight into decision makers’ views of MIPs planning and building. See Chapter four for an in-depth discussion of the decision to focus on an insider circle and take an interpretivist approach to the data. Chapter four noted that interpretivists seek data that is at the centre of the researched issue. Thus, high government officials that are linked to the implementation of the FYP through their institutions were considered as part of the insider circle, for example, the Mayor of Riyadh and the Governor of Communications and Information Technology.

The pool of interviewees was limited to the decision-making circle. The interview data includes 15 interviews as shown in table (6.1). They include five from the Council of Ministries, six from the Shura Council, and four from other from high-ranking government officials and coded as the following:

**Table 6.1 Coding for interviews**

Shura Council	Council of Ministries	Council of Ministries/Bureau of experts	Other governmental institutions
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S1	C1	C4B1	O1
S2	C2	C5B2	O2
S3	C3		O3
S4	C4B1		O4
S5	C5B2		
S6 (O)			

These are semi-structured interviews resulted in interviews expending from three to ten questions differing from one interviewee to another. These semi-structured interviews targeted three groups; each group had a bespoke set of questions that initiate a semi-structured interview. The questions **aim to uncover the relationships between these groups of interviewees within the institutional set of decision-making, the impact of the five-year plan on MIP development, and decision-making process MIPs decision-making process.**

Questions developed take into consideration interviewees different occupations and how each group would provide great insight into the research. They are detailed as follow:

#### 1. Council of ministers:

These can be split into four sets of question, each with specific questions suited to their position categories:

- Set A: C1.
- Set B: C2 and C5.
- Set C: C3B1.
- Set D: C4B2.

## 2. Shura council:

This group is split into two sets of questions:

- Set E: S1, S2, S3, S4, and S5.
- Set F: S6(O1).

## 3. Other governmental organisation:

All four interviewees within the group O had different semi-structured interviews as each one of them came from a different governmental organisation. They are as follow:

- Set G: O1.
- Set H: O2.
- Set I: O3.
- Set J: O4.

All interviews can be found in the appendices and are further detailed on the question formation section in Chapter four. Themes were developed based on coding of data. They are as follows: 1) Stakeholder involvement, 2) Final decision maker, 3) Issues and recommendations for the five-year plan and 4) Initiation of MIPs outside the plan's framework.

### 6.1.1 Analysis

The 11 subcategories noted above developed the four themes used for analysis as noted above; 1) Stakeholder involvement, 2) Final decision maker, 3) Issues and recommendations for the five-year plan and MIPs development and 4) Initiation of MIPs outside the FYP. As seen in table 6.2, these final themes created the following analysis

Table 6.2 thematic analysis of the interviews.

	Stakeholder involvement	Final decision maker	Issues and recommendations for the five-year plan and MIPs development	Initiation of MIPs outside the five year plan
S1	The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).			Due to very pressing need of growth which has caused the government to produce projects in a very fast rhythm. For instance Aramco is appointed to handle projects outside its expertise such as stadium aljohra. This due the fact that Aramco is one of the most developed governmental institution that they us to escape bureaucracy when they have no time for it.
	No			
	Technical always			
	No			
	No			
S2	shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority.		I don't feel there is an importance on the five year plan. The five year plan on its current shape is very week and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the five year plan, a time schedule and a criteria to measure the success of the work.	the five year plan is great on paper but very weak in its core and not able to cope with the needs of the country  Due to an issue of regulations and the fact that the five year plan is not very detailed and measured on correct criteria
	The shura is more of a factory of regulations and policies			
	The shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet.			
	we receive information of projects based on ministries reports for every past year			
	They intervene on both technical and financial standpoint			
	No			
S3	shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country.	This is a power that only the ministry of finance has.  No, only the ministry of finance is included on every project. And at some point the ministry could produce a mega projects based on its own decision that is not part of its responsibility and then gives to another ministry such the princess noura university.		the five year plan is not very detailed and measured on correct criteria.
	There is no direct connection with mega projects and the shura.			
	Both			
	I don't feel there is a strong connection between it and the shura			
	No			
S4	The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions.		there is a problems with the five year plan. Problems of execution and budget.	The governments high ambition and the availability of funds. <i>Thus causes the executive authority to pass the government</i>
	On strategic projects which are having construction issues such as the industrial cites based on reports of ministry of commerce. The shura role			

	<p>on this stage it trying to identify the problems and suggesting solutions.</p> <p>No that is not of the specialty but they may be presented to them through the yearly reports of government agencies</p> <p>The shuras main role is mentoring/reviewing and developing regulations.</p> <p>technical unless they felt there are some signs of corruption</p> <p>No</p>			
S5	<p>A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the shura does not track their recommendations.</p> <p>The council talks is not effected with the plan in a big way and not in a direct way.</p> <p>They do not pass by us in a direct way but we look into them in the yearly reports. For example projects of the ministry of housing and sometimes they don't pass by us like the norah university and several stadiums. Some pass by us through reports some don't.</p> <p>Financial more because it is clearer and technical less. Mostly into cost and benefit</p>	<p>the decision maker might have point of view which is deferent than the ministry of planning. For example the 14.2 billion budget for projects requested by "...." as he is an influential minister of education that can effect the decision maker, the king.</p>		<p>It might be due to emergency projects or due to what they have is more than the content of the five year plan.</p>
S6 (0)	<p>It does not intervene, intervention is only to evaluate government institution. It never intervenes in the detail. Its perspective is only on the vision and not the details</p>	<p>The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterword's the ministry release the actual budgets cutting major projects based on their policy</p> <p>The ministry of planning does not include the finance in formulating the budget for the five year plan. After doing the budget the finance, planning and the interested ministry set meeting to develop the finial budget</p>		<p>we find ourselves with high funding, for example within the king Abdualh period mega projects were spread as the oil market was generating high earnings. (mips produced out of the plan)</p>

C1	Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet (COF)		The process must always be in a permanent consult in every step, and detailed on macro level, because they translate the dreams of the country and it must be realistic and able to execute. the plan is the other side of the budget and must be in line with the it. Follow-up is very important to know the errors and pitfalls	
	They are all linked to the Council of ministers and under it authority, they do not have the authority to approve but it generate visions, and the bureau of experts is considered a Think Tank			
C2	Every government body puts their plan for 5 years and is sent to the ministry of planning, then meeting are done to discuss and review these plan between the ministry of planning finance and the intended ministry. These meetings form the five year plan		The problem surfaces from the nature of the countries economy. Its economy is formed around the oil economy and the five year plan is impacted with changes based on the changes of oil market. If the market is low the funding becomes low. That the problem. Thus flexibility is needed and sometimes goals are abended. Another issues is that sometimes a government body is not capable or strong enough to deliver its goals. For sometimes the goal is bigger than the institution itself. That's why the ministry of finance is in constant interference with mid range plans. The problem is that wealth is oscillatory and unstable and effects the plans progress	It flows from the ministry itself thus from the ministry to the council of ministries No, doesn't require, and sometimes studies are done with private consultancy, the ministry of planning and economics do sometime intervene with other ministers that are touched by the project
C3 (B1)	A technical governmental body that receives administrative transactions to study them from a legal standpoint.			No, in general the flow of work and projects follows the yearly budgets and the five year plan is only guiding instructions.
	No, there is no relation because the bureau is only concerned with legal issues.			
C4 (B2)	the council of development and economics studies the five year plan and only provide general visions and goals for the government.		government budgetary should be transferred from the ministry of finance to the ministry of planning. it would be better if the ministry of planning would include the privet sector and be a partner in delivering the five year plan. adding a council within the council of development and economics that prepares the five year plan and coordinate between all stakeholders.	

C5	The council has been split into two, one for the politics and security and the second for development and economics. Thus every ministry now discusses its goals and strategy in the council of development and economics and after it discuss them its is drawn into a final form. Ministries work as partners in providing a clear strategy for every ministry and conducting workshops to connect each ministry with its goals and rise spending efficiency.		That every ministry puts a strategy into achieving their goals with great detail.	
	The ministry of planning merges every ministry in workshops and set priorities while also identifying the first steps of the plan			
	Giving priorities based on current economic conditions			
	Any mega projects are launched from a cooperated vision from the council of development before its raised to the council of ministries. Then conducting workshops, and now any mega project must be under the (national transformation plan)			
	Through the council of development and economics			
	No project will be done unless with a careful supervision of the current situation from the council of development and the council of ministries			
O1	its time for the non centralization for local governments. For example the ministry of municipality and rural affairs is built on non centralization vision.	The ministry of finance	There should be a focus and concentration on the strategic relationship between all projects and their placement. There should be a council that provides communication Between government bodies, but the problem of bureaucracy forces less communication.	No, there are from our own vision, and with the support of the governor.
	<i>Viewpoints of the government bodies are received but little communications is done after that</i>			
	Firstly with the governor and then the ministry of finance and sometimes we rely on the media as a tool of pressure on the ministry of finance			
O2	The relation is close when a project has a legal dimension that needs to be reviewed.			



	<p>The council distinguish the highest priority projects from the least to the ministry of finance so the ministry can provide support to it.</p> <p>The council aims to resolve the issue of coordination between all government ministers from the beginning of every project or program.</p>			
O3		<p>from my past experience in the university (assistant to the head of King Saud university) as I was representing the university we had meetings with the ministry of planning and ministry of finance, to assure that our projects were within the boundaries of the five year plan. The issue was that projects were erased from the plan by the representative of the ministry of finance based on their spending policies with no intervention by the representative of the ministry of planning.</p>	<p>Projects of the commission are in harmony with the five year plan vision and goals. It should be taken into perspective the deep concerns of the commission as it works in a very dynamic context that shifts and changes a lot. That's way certain projects are out of the five year plan boundaries, due to big jumps in the telecommunication sector.</p>	
O4		<p>The finance does not intervene in the vision and formation of the plan but rather on the execution of the plan.</p>	<p>They must develop precise indicators to measure performance.</p> <p>the return on investment of the projects in terms of profitability nationalism or national benefits have been absent.</p> <p>A big issue that needs to be resolved is the rearranging of the organizational relationships between the Council of Ministers and the Economic and development and the Shura Council, not to mention the presence of a Ministry of Planning</p> <p>There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities</p> <p>generally the kingdom is not wealthy.</p> <p>Cancel development plan such as the five year plan and introduce reform programs</p>	

## 6.2 Findings

The findings of the analysis were categorized under the following:

### 6.2.1 Stakeholder involvement

One of the main themes that emerged was stakeholder involvement within the decision-making process. The 15 interviews produced several codes that can help understand the institutional set up of decision-making and the stakeholder involvement between government agencies in the decision-making process for MIPs and the FYP.

Chapter two concluded that the relationship between the Council of Ministers, Shura Council and key governmental institutions were still unclear, specifically their involvement on MIPs and the FYP.

With regard to the Shura's role with governmental agencies, workflow S1 noted that there are no direct connections with government agencies except through reviewing government strategies and yearly reports as stated in article 15 that was noted in Chapter two:

*“There is no relation with other institutions from a consultancy angle. The Council of Ministers in specific does not gain council in decision's. The Shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17)”*

S3 further asserts S1 comment and state that their primary work is with the council of ministers:

*“Shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country”*

S2 further states that the Shura's relation with the Council of Ministers is limited to consultancy:

*“Shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority”*

With regard to the main goals of Shura, is to review and study in the fields of law and regulations. S4 notes:

*“The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions”*

S5 further detailed on the Shura’s relation with other government agencies by noting that they work as a surveillance for governmental activities and continuous reviews of rules and regulations. The coding for S5 shows the following:

*“A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth-year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the Shura does not track their recommendations”*

The surveillance of government will include MIPs at some points through yearly reports of governmental institutions. But not all MIPs are included in the yearly reports. S2, when asked if the Shura is included in every MIPs development in Saudi, noted:

*“No. We receive information of projects based on ministries reports **for every past year**”*

S5 further mentioned that MIPs could only be viewed if they are included in the yearly reports of government agencies as he notes:

*“They do not pass by us in a direct way but we look into them in the yearly reports. For example, projects of the ministry of housing and sometimes they don’t pass by us like the Norah university and several stadiums. Some pass by us through reports some don’t”*

S4 noted that not all MIPs developed within the kingdom passes by them, when asked if the Shura is involved in every MIP developed by the government. He noted:

*“No that is not of our specialty but sometimes they are presented to the council through the yearly reports of government agencies”*

S1 asserted with S4 when asked the same question and responded as follow:

*“No”*

S4 noted that the Shura involvement with MIPs could happen when they are at a construction stage due to yearly reports:

*“On strategic projects which are having construction issues such as the industrial cites based on reports of ministry of commerce. The Shura role on this stage it trying to identify the problems and suggesting solutions”*

The coding has further looked into the type of involvement with MIPs. S1 noted:

*“Technical always”*

S2 further noted that the nature of intervention on MIPs are by the following:

*“They intervene on both technical and financial standpoint”*

S3 asserted the following with S2, when asked if they intervene on a financial or technical standpoint:

*“Both”*

S4 noted that the intervention on MIPs is technical unless there are signs of corruption as the coding shows:

*“Technical unless they felt there are some signs of corruption”*

However, S5 contradicted and noted that the intervention is mainly a financial standpoint; he stated:

*“Financial more because it is clearer and technical less. Mostly into cost and benefit”*

With regard to MIPs’ creation, S3 was asked if the Shura suggested MIPs as solutions or suggestions; he noted the following:

*“There is no direct connection with mega projects and the Shura”*

S2 asserted with S3 when asked about the Shura’s relation to MIPs development and noted:

*“The Shura is more of a factory of regulations and policies”*

S4 further asserts on S2’s comment with regard to Shura’s involvement with MIPs by stating the following:

*“The Shura’s main role is mentoring/reviewing and developing regulations”*

Regarding the decision-making process of MIPs, S1, S2, S3 and S4 were asked if the council has the authority of rejecting MIPs' developments; they all responded as follows:

*"No"*

S1 mentioned the following when asked if the Shura ever intervened MIPs' approval process with a rejection or approval:

*"No"*

S2 further noted when asked if ever intervened on MIPs on its approval process whether with a rejection or approval he noted:

*"The Shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet"*

S6 (0) further noted that the Shura does not intervene in approval or rejection of MIPs:

*"It does not intervene, intervention is only to evaluate government institution. It never intervenes in the detail. Its perspective is only on the vision and not the details"*

Regarding the FYP development within the institutional set up of decision-making, C5 stated that the Ministry of Planning makes room for participation when developing national plans:

*"The Ministry of Planning merges every ministry in workshops and set priorities while also identifying the first steps of the plan"*

Furthermore, C1 notes that the general process of the FYP after completion is as follows:

*“Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet (Council of Ministers)”*

C2 further detailed the process of creating a FYP:

*“Every government body puts their plan for 5 years and is sent to the ministry of planning, then meetings are done to discuss and review these plan between the ministry of planning finance and the intended ministry. These meetings form the FYP”*

Regarding the involvement of the Shura with the FYP, S3 felt there is no strong impact by the Shura council on the FYP as the coding shows:

*“I don’t feel there is a strong connection between it and the Shura”*

S5 further commented on the relation with the FYP as he notes that there is no strong connection with the FYP:

*“The council talks are not effected with the plan in a big way and not in a direct way”*

O1 explains the relationship between the Ministry of Planning and the government bodies when developing FYP:

*“Viewpoints of the government bodies are received but little communications are done after that”*

With regard to the bureau’s relation with other governmental institutions, C3 (B1) noted the following:

*“A technical governmental body that receives administrative transactions to study them from a legal standpoint”*

C3 (B1) further points out the bureau’s role with the FYP:

*“No, there is no relation because the bureau is only concerned with legal issues”*

With regard to the council of minister’s relation with MIP development, C2 noted that when an MIP is considered, it is first sent to the Council of Ministers; he pointed out the following:

*“In the start, a study is conducted and then raised to the council which later forms comities and the ministry of finance has to be in the comity”*

O1 commented on the process of proposing a mega project when he was the mayor of Riyadh:

*“Firstly, with the governor and then the Ministry of Finance and sometimes we rely on the media as a tool of pressure on the Ministry of Finance”*

O1 further noted that the institutional set up of decision-making for mega project approval needs to be non-centralised:

*“Its time for the non-centralization for local governments. For example, the Ministry of Municipality and Rural Affairs is built on non-centralization vision”*

The coding of the Council of Ministers interviewees provided insight into the effects of two new councils under the Council of Ministers, which are the Council of Economics and Development and the Council of Politics and Security within the institutional set up. As they are newly established councils, there are no official documents to understand their impact. Thus, the coding will help explain their effect on MIPs’ planning and development and the FYP. Specifically, the



Council of Economics and Development, as the Council of Politics and Security is more concerned with political agendas. C5 points out the relation of the two new councils in the structure of the council of ministers:

*“The council has been split into two, one for the politics and security and the second for development and economics. Thus, every ministry now discusses its goals and strategy in the Council of Development and Economics and after it discuss them it is drawn into a final form. Ministries work as partners in providing a clear strategy for every ministry and conducting workshops to connect each ministry with its goals and rise spending efficiency”*

C1 noted that the Council of Economics and Development works under the Council of Ministers such as the Bureau of Experts as the coding shows the following:

*“They are all linked to the Council of Ministers and under it authority, they do not have the authority to approve but it generates visions, and the Bureau of Experts is considered a Think Tank”*

C5 pointed that the council helps in prioritizing goals for government agencies as he noted that part of the council of development aims for the following:

*“Giving priorities based on current economic condition”*

Regarding MIPs development, C5 indicated that they are launched from the Council of Economics and Development and must be under the “national transformation plan” (the notational transformation plan is of five-year lifecycle created since the tenth FYP was put on hold). The coding shows the following:

*“Any mega projects are lunched from a cooperated vision from the council of development before its raised to the council of ministries. Then conducting workshops, and now any mega project must be under the (national transformation plan)”*

C5 stated that any MIP must run through the Council of Economics and Development. When asked which are the government bodies that his ministry cooperates with when developing a project, he noted the following:

*“Through the Council of Development and Economics”*

C5 further mentioned that all MIPs will be considered firstly by the Council of Economics and Development:

*“No project will be done unless with a careful supervision of the current satiation from the Council of Development and the Council of Ministers”*

On the other hand, C4 (B2) presented different viewpoint and noted that the Council of Economics and Development’s focus lay in creating vision and goals of the government:

*““The Council of Development and Economics studies the national plans and **only** provide general visions and goals for the government”*

O2 noted that the relation between the Council of Economics and Development and the Bureau of Experts on aspects such as MIPs can occur only when they have a legal dimension to it:

*“The relation is close when a project has a legal dimension that needs to be reviewed”*

O2 stated the impacts of the Council of Economics and Development on the Ministry of Finance:

*“The council distinguish the highest priority projects from the least to the Ministry of Finance so the ministry can provide support to it”*

O2 noted that the main goal of the Council of Economics and Development is to resolve coordination issues between governmental institutions:

*“The council aims to resolve the issue of coordination between all government ministers from the beginning of every project or program”*

#### 6.2.2 Final decision maker

Findings of this theme demonstrated the power of the Ministry of Finance and the strong grip it has on MIPs development and the flow of the FYP. When asked if the Shura council ever intervened on MIPs on its approval process with a rejection or approval, S3 noted the following:

*“This is a power that only the Ministry of Finance has”*

Furthermore, when asked if the council is included in every MIP the country produces, S3 responded with the following:

*“No, only the Ministry of Finance is included on every project. And at some point, the ministry could produce a mega project based on its own decision that is not part of its responsibility and then gives to another ministry such the Princess Noura University”*

Moreover, O1 when asked who has the final say in the approval of your project noted:

*“The Ministry of Finance”*

Regarding the relation of the Ministry of Finance with the FYP, O4 mentioned that the Ministry of Finance does not intervene in the formation of the plan but impacts its execution:

*“The finance does not intervene in the vision and formation of the plan but rather on the execution of the plan”*

With regard to the FYP, S6 (O)’s coding explained the process of developing the budget for the FYP:

*“The Ministry of Planning does not include the finance in formulating the budget for the FYP. After doing the budget the finance, planning and the interested ministry set meeting to develop the final budget”*

O3 explained the nature of these meetings and that they disrupt the flow of FYPs goals set by the Ministry of Finance:

*“From my past experience in the university (assistant to the head of King Saud University) as I was representing the university we had meetings with the Ministry of Planning and Ministry of Finance, to assure that our projects were within the boundaries of the FYP. The issue was that projects were erased from the plan by the representative of the Ministry of Finance based on their spending policies with no intervention by the representative of the Ministry of Planning”*

S6 (O) further stated the impact of the Ministry of Finance on the final budget:

*“The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterword’s the ministry release the actual budgets cutting major projects based on their policy”*

However, S5 noted that some ministers can overcome all odds when producing MIPs:

*“The decision maker might have point of view which is deferent than the Ministry of Planning. For example the SAR 14.2 billion budget for projects requested by “.....” as he is an influential minister of education that can effect the decision maker, the king”*

### 6.2.3 Issues and recommendations for the Five-Year Plan and Mega infrastructure projects development

Regarding the impact of the FYP on the Shura Council agendas, S2 stated that it is not important and pointed out some issues within the FYP framework:

*“I don’t feel there is an importance on the FYP. The FYP on its current shape is very weak and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the FYP, a time schedule and a criteria to measure the success of the work”*

S4 also noted an issue on the development of the FYP:

*“There are problems with the FYP. Problems of execution and budget”*

C2 mentioned that one of the issues affecting the FYP implementation is the economic nature of kingdom and its institutional capabilities to implement such plan:

*“The problem surfaces from the nature of the country’s economy. Its economy is formed around the oil economy and the FYP is impacted with changes based on the changes of oil market. If the market is low the funding becomes low. That is the problem. Thus flexibility is needed and sometimes goals are abended. Another issue is that sometimes a government body is not capable or strong enough to deliver its goals. For sometimes the goal is bigger than the institution itself. That’s why the ministry of finance is in constant interference with mid range plans. The problem is that wealth is oscillatory and unstable and effects the plans progress”*

O4 also commented on the economic aspect of the kingdom and if the oil revenues affect its decision-making process:

*“Generally, the kingdom is not wealthy”*

C5 noted that a recommendation for the FYP is that each ministry should strategically focus on fulfilling the goals of the plan:

*“That every ministry puts a strategy into achieving their goals with great detail”*

C4 (B2) recommended the following regarding the issues of the FYP:

*“It would be better if the ministry of planning would include the private sector and be a partner in delivering the FYP”*

C4 (B2) also noted that to overcome the strong grip of the Ministry of Finance, the following should be made:

*“Government budgetary should be transferred from the Ministry of Finance to the Ministry of Planning”*

C4(B2) recommended the following for developing the decision-making process for the FYP:

*“Adding a council within the Council of Development and Economics that prepares the FYP and coordinate between all stakeholders”*

With regard to further developing the FYP, C1 noted the following:

*“The process must always be in a permanent consult in every step, and detailed on macro level, because they translate the dreams of the country and it must be realistic and able to execute. the plan is the other side of the budget and must be in line with the it. Follow-up is very important to know the errors and pitfalls”*

When asked for his recommendation for improving the current decision-making framework for Saudi Arabia to foster long-term objectives of MIPs, O1 stated the following:

*“There should be a focus and concentration on the strategic relationship between all projects and their placement. There should be a council that provides communication between government bodies, but the problem of bureaucracy forces less communication”*

O1 has also noted that the current institutional set up of the government should be further developed and recommended the following to improve the FYP:

*“Re inspecting the relation between the finance, planning and the involved ministry while planning programs and projects and providing detailed budgets with clear priorities”*

O4 noted that the current institutional set up of decision-making regarding the FYP needs to be developed further:

*“A big issue that needs to be resolved is the rearranging of the organizational relationships between the Council of Ministers, Council of Economic and Development and the Shura Council, not to mention the presence of a Ministry of Planning”*

O4 indicated that there is a difference of interpretation of the government’s visions between different institutional set ups. When asked if there are conflicting policies between the Ministry of Planning (the producer of country’s policies) and the Ministry of Finance (with their own agenda and policy) on the decision-making process, he noted the following:

*“There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities”*

O1 stated the following regarding issues with the FYP:

*“the problem with FYP is that it cannot force its goals on the ministry of finance, the ministry of planning is like an old wise man that gives council but are not law banding, the problem is that its goals are wishes and not realities”*

O3 further recommended occasionally considering the dynamic of contexts some government agencies work within in order to improve the FYP:

*“Projects of the commission are in harmony with the FYP vision and goals. It should be taken into perspective the deep concerns of the commission as it works in a very dynamic context that shifts and changes a lot. That’s way certain projects are out of the FYP boundaries, due to big jumps in the telecommunication sector”*

O4 recommended developing precise inductors for the FYP:

*“They must develop precise inductors to masseur performance”*

O4 even noted that the FYP should be stopped showing a lack of confidence on its abilities:

*“Cancel development plan such as the FYP and introduce reform programs”*

O4 further mentioned the need of considering national benefits within the FYP:



*“The return on investment of the projects in terms of profitability nationalism or national benefits have been absent”*

#### 6.2.4 Initiation of Mega Infrastructure projects outside the Five-Year Plan

The previous coding showcased some issues of MIP development where, in some instances, they were developed outside the FYP framework. This theme provides a further understanding on why MIPs are developed outside FYPs.

S1 noted that a reason for MIPs development outside the FYP is the government’s hunger for growth as the coding shows the following:

*“Due to very pressing need of growth which has caused the government to produce projects in a very fast rhythm. For instance, Aramco is appointed to handle projects outside its expertise such as stadium Aljohra. This due the fact that Aramco is one of the most developed governmental institution that they us to escape bureaucracy when they have no time for it”*

S2 further noted that the FYP cannot cope with the needs of the country at certain points, which can cause new MIPs outside the FYP framework:

*“the FYP is great on paper but very weak in its core and not able to cope with the needs of the country”*

S4 also linked the development of MIPs outside the FYP to kingdom’s high ambition and availability of funds:

*“The governments high ambition and the availability of funds. Thus causes the executive authority to pass the government”*

S2 also provided other reasons for MIPs development outside the FYP:

*“Due to an issue of regulations and the fact that the five year plan is not very detailed and measured on correct criteria”*

S3 linked the development of MIPs outside the FYP to issues within the FYP. S3 noted the issues that cause MIPs’ development outside the FYP as follows:

*“The FYP is not very detailed and measured on correct criteria”*

S5 mentioned that it just might be due emergency or need of projects (mega events) or that the budget can soar (due to oil markets boom) and government agencies would have more funding. S5 coding shows this:

*“It might be due to emergency projects or due to what they have is more than the content of the FYP”*

S6 (O) asserted with S5 that sudden budget increases encourage further MIP development outside the FYP:

*“We find ourselves with high funding, for example within the King Abdualh period mega projects were spread as the oil market was generating high earnings”*

C3 (B1) noted that MIPs in general do not follow the FYP framework and that it is only a guiding instruction:

*“No, in general the flow of work and projects follows the yearly budgets and the FYP is only guiding instructions”*

C2 agreed with C3 (B1) by noting that MIPs does not follow the FYP while developing MIPs but rather their own vision:

*“It flows from the ministry itself thus from the ministry to the Council of Ministers”*

C2 was asked if he was required to negotiated with the Ministry of Planning even though his ministries projects are not from the FYP, do they still require negotiating with the Ministry of Planning; he responded as follows:

*“No, doesn’t require, and sometimes studies are done with private consultancy, the Ministry of Planning and economics do sometime intervene with other ministers that are touched by the project”*

O1 also noted that the projects they develop and govern in mega level do not need to be based on the FYP:

*“No, there are from our own vision, and with the support of the governor”*

### 6.3 Conclusions

The chapter provided the thematic analysis outcomes of the 15 interviews. The coding was categorised under the following four themes: 1) Stakeholder involvement, 2) Final decision maker, 3) Issues and recommendations for the FYP and MIPs development and 4) Initiation of MIPs outside the FYP. The coding showcased obstacles that governmental institutions face while implementing the FYP. It presented data that identifies final decision makers and the nature of relationship between the regulative and executive authorities, which are the Shura Council and the Council of Ministers, respectively. The data also presented the nature of centralisation regarding the development of the FYP and MIPs.

Furthermore, the analysis of the interviews showcased the effects of Saudi wealth and its oil revenues on the FYP progress and MIP development.

These outcomes from the thematic analysis will be discussed in Chapter seven. The next chapter will build upon these results; it will examine the results from an explanatory perspective to understand how the current institutional set-up of decision-making conducts its planning and development for MIP as well as why this state of governance manifested to what it is today.

# Chapter VII

## Discussion

## 7. Introduction

Mega infrastructure projects (MIPs) planning and development is of great importance due to the substantial impact of such projects. Understanding the decision-making process for MIPs can reveal the institutional culture of governing such projects for a specific context. Further, it can showcase internal and external factors that influence the decision-making process. Knowing such aspect helps in the field of management. Providing in-depth contextual knowledge contributes to building a foundation for specific context studies in the field of project management.

The institutional set up of decision-making that governs MIP planning and development within the kingdom of Saudi Arabia has been explored through analysed interviewees, and this chapter will present the discussion of such results.

Chapter two presented the macro institutional set up for Saudi decision-making regarding MIPs. The chapter also introduced the Five-Year Plans (FYPs) and presented its relation to MIP development. It concluded with stating several aspects to consider such as government bodies that represent the executive and regulative authorities. It also highlighted institutions that can be investigated for their role to MIP and FYP planning and development.

Chapter Three, the literature review, concluded that a gap of knowledge that can be filled is a study that would provide up-to-date knowledge regarding Saudi's institutional set of decision-making process for MIP development. As Chapter three explored the dynamics of MIP development and rooted that one of main aspect to consider With regard to their success or failure is the institutional set up that govern such projects.

Chapter four concluded that an explanatory study would be conducted to uncover and explain the relationship between government agencies within the institutional set-up of MIP decision-making process and its effects on the FYP on MIP development.

Chapter five was an exploratory research; it was a pre-step for the main research. It explored the goals of the Saudi government and provided literature surrounding them. It also conducted a sample survey regarding the priorities of these goals. The aim of this chapter was to provide the researcher and the reader with literature and general knowledge regarding the studied context.

Chapter six was the analysis of the collected data used to study Saudi's institutional set up of decision-making for MIPs. The chapter thematically analysed 15 interviews with senior Saudi Governmental decision makers. The discussion of these results will be carried out in this chapter.

Chapter seven will discuss the explanatory research outcomes and the new generic lessons that can be taken from them regarding the development of MIPs via national plans. The discussion would build up and conclude what can be considered as significant and concurrent knowledge regarding the macro institutional set up of decision-making for MIP planning and development within the kingdom of Saudi Arabia.

Section 7.1 will discuss the main findings of the of the thematic analysis by explaining the relationship of government agencies regarding the decision-making for MIPs and FYPs. Presenting external and internal effects that can affect MIPs decision-making and development. Section 7.2 will conclude the chapter and state the main findings. It will also cover the considered gap of knowledge fulfilment for the research aim and the main lessons that can be taken from this research.

## 7.1 Discussion

The discussion chapter of the thesis will evaluate the results of the 15 analysed interviews presented in chapter six and what can they present on explaining the relationship of government agencies within the institutional set up of decision-making for MIPs and FYPs. Moreover, what external and internal effects that can be observed from the analysis that affect the flow of the FYP development and MIPs decision-making. The overall outcome of chapter six found issues to MIP decision-making and planning and can be summarised as follows:

- The FYP is not used to structure the work of government institutions.
- Unrealistic targets developed by the Ministry of Planning for government bodies that may not be capable or strong enough to deliver those targets.
- The surplus budgets due to booming oil markets coupled with a pressing need for growth has resulted in MIPs developed outside the plan.
- The lack of coordination between the Ministry of Finance's planning and the interested government body in the development and implementation of the plan.
- The high level of centralisation at the planning stage by the Ministry of Planning.
- The high level of centralisation of the approval stage by the Ministry of Finance, as it becomes the final decision maker on its MIPs and programs.
- The conflict between the Ministry of Finance and the planning ministry on priorities and visions.

The thematic analysis has also extracted three recommendations from the interviews for the FYP that are indicated below:

- There is a need for a detailed execution plan alongside the FYP, a schedule, and criteria to measure the success of the work.



- The process must always be in a permanent consult with wider stakeholder involvement at every step and detailed at the macro level.
- There should be a council that provides communication between government bodies.

The implications of these findings will be discussed in the following sub sections. Structured into three sections which are as follows:

#### 7.1.1 The institutional set up of decision-making

This section will be split between MIP and FYP planning and development; each subsection will discuss the realities of their development and planning within the Saudi government.

##### *7.1.1.2 Mega infrastructure projects planning and development*

This section will discuss the dynamics within the institutional set up of decision-making. In particular, the dynamics of decision-making for MIPs development will be analysed by going over the Saudi institutions that are investigated in Chapter six regarding their roles in MIP planning and development.

Based on the interviews and documents, the Shura plays no role in the decision-making process of MIPs as the analysis outcome showed that they were not included in vital decisions such as approval or rejection of major projects. The Bureau of Experts (BOE) has been identified as the legal arm of the council and not a part of the approval process of MIPs, as it is only concerned with the technical standpoint of legal aspects of projects and programmes in relation to MIPs. They do not have the authority to approve or disapprove.

Along with the development of the thesis, a new council under the Council of Ministers emerged as the Council of Economics and Development. However, no official governmental documents were issued regarding its authority and scope

of work; thus, chapter six aimed to understand their role within the decision-making process. The analysis outcome demonstrated that the Council of Economics and Development do not have the authority of project approvals or rejection of MIPs and only generate visions and goals for the government, as noted in Chapter six.

Chapter six found out that, in general, a proposal of MIP by any ministry requires a study. Then the project is escalated to the Council of Ministers, which forms a committee for the proposed project. The Ministry of Finance *must be on the committee* which emphasises the significant role of the Ministry of Finance. According to interviewees, the Ministry of Finance can intervene in MIP development through rejection or approval and only the Ministry of Finance is included in every mega project. At some point, the Ministry of Finance could produce a mega project based on visions that are not part of its responsibility and then give it to another ministry, as was the case with the Princess Noura University project, which was developed by the Ministry of Finance and then given to the Ministry of Education. The project was delivered with an estimated cost of 5.3 billion USD in 2011 as noted in chapter two. This reality displays a lack of stakeholder involvement while developing MIPs. Thus, this entails taking higher risks in projects' development, as Dimitriou et al. (2013) studied the success and failure of 30 Mega transport projects as case studies and concluded the need for wide stakeholder involvement as early as possible, as a fundamental pre-requisite of success. Al-Awaji (2014), who worked as an assistant to the Ministry of Interior for 25 years, argues that the Ministry of Finance, which is responsible for the revenues and expenses of the state, is entering the field of implementation of mega projects such as Princess Noura University and expansion projects for the two Holy Mosques. He further notes that this reality is might create negative outcomes as he called it "organisational chaos" in governmental administration.

Considering the strong grip of the Ministry of Finance on MIP development, this aspect creates a strong centralisation point within institutional set up of the decision-making process. Dimitriou et al. (2013 ) raised concerns about powerful central government agencies, such as treasuries, because they do not support the best of judgments, such as visions of sustainable development. His conclusion was based on a five-year study of 30 decisions relating to mega transport projects, in 10 developed economies. Zeng et al. (2014) noted that contexts with excessive administrative intervention, such as public power alienation and opportunistic decision-making, can affect the social responsibility performance of MIPs. These issues are seen in the Saudi context. For example, excessive administrative intervention is found in the interventions of the Ministry of Finance by rejecting, approving or replacing and producing MIPs from their own vision. Opportunistic decision-making is also happening due to political champions, which will be argued later in this chapter. Zeng et al. (2014) add that a way to reduce this issue for MIPs is to ensure wider stakeholder involvement in discussion of MIPs during the conception stage and participation in the analysis of the projects' feasibility, with proper information disclosure and participation mechanisms.

#### *7.1.1.2 Five-Year Plan planning and development*

This section will discuss the formation of the FYP and major institutions that are involved within it and how its created and approved based on Chapter six's analysis. Further, this section will discuss to what degree the FYP dictates MIP planning and if such plans impact their development.

Chapter six demonstrated how the interviewees from the governmental institutions under the regulative and executive authorities were absent from the initial stages that form the FYPs goals and visions. For example, the Shura council's input on FYP or most national plans goals and frameworks are consulted after their formation, after an almost finished draft is created by the

Ministry of Planning. The Shura council members stated that they get little room to suggest measures for improvement when they are consulted only on already finalised goals and frameworks set by the Ministry of Planning for the FYP. Shura council members who were interviewed argue that FYPs are received for review only when they are fully developed, thus limiting their input and development evolution of these plans. Chapter two noted that the preparation stage that is the first stage of the FYP in which it develops the overall objectives of the plan, policies and implementation mechanisms is implemented by forming working groups exclusively within the Ministry of Planning. Affirming this analysis outcome that some aspects within the plan get developed without wider stakeholder involvement. It is concluded that the Shura council, as part of the regulatory authority, has minimal involvement with the FYP.

The executive authority is represented by the Council of Ministries and works under this council; its two sub-councils are the BOE and the Council of Economics and Development. With regard to their involvement with the FYPs formation, the BOE was concluded in Chapter six as more of a legal arm that works on the legal aspects of the government and has no effect on the FYP. The Council of Economics and Development was created to make room for further participation of all ministries and better coordination between all government ministers. Further, the council will be providing support to the Ministry of Finance by prioritising projects based on their visions. These two aspects of better coordination and prioritising are how the government aims to ensure the success of economic and social plans. Although it is difficult to understand its impacts if the Council of Ministers fails to apprehend the issue of communication, a council that is far more legally capable than the council of economics and development. It could be argued that the Council of Economics and Development must introduce different stakeholders, rather than limiting its members to members of the Council of Ministers and reducing the strong grip of the Ministry of Finance. The fact that membership of the council is limited to members of the Council of

Ministers offers further entrenched bureaucracy. Further, two interviewees perceive no strong effect on the planning of FYPs by the council of economics and development. The council would help develop the goals and visions but not go deeper into its structure and process. A member of the council notes the following:

*“The Council of Economics and Development studies the FYP and only provides general visions and goals for the government”*

With regard to other governmental institutions that are not part of the Shura council or Council of Ministers, interviews with its heads and high-ranking official with such instantiations were conducted to examine further their involvement with the FYP as seen in Chapter six. Their interviews still presented issues of stakeholder involvement regarding the formation of the FYP; the Ministry of Planning, as noted by an interviewee, only requests for information and concerns at the beginning of the planning process but obtains no further communication relating to the progress of implementation. It seems what he referred to as the beginning of the plan as stage one of the FYP formation (see Chapter two).

Finding lead stakeholders that are part of the regulative authority such as the Shura Council, noting their lack of involvement in the early stages of the decision-making process and ministers who are part of the Council of Ministers also noting that as stakeholders through their ministries, they felt under-involved in the decision-making process might reduce positive impacts on the decision-making process for FYP. Surowiecki (2004) argued that there is no point for organisations to include small groups in their leadership structures if they do not make decisions. He further argued that if such groups are used only for advisory purposes, they would fail to produce a successful stakeholder involvement process. Thus, the Shura Council as a regulative authority should not be an advisory group while developing the FYP rather should be a part of the early

planning and decision-making process stages. A broader consideration of stakeholder involvement is needed, not only by the Shura Council but also by all those who might be considered stakeholders. Interviewees argued that the process of the FYP formation must always involve continuous consultation with its stakeholders at every step and detailed at the macro level, as well as it should involve a realistic approach that would be possible to execute. Further, an interviewee stated that follow-up and monitoring in the implementation years of the FYP plan are very crucial parts to detect errors and pitfalls. Chang et al. (2013) asserted on this aspect and noted the importance of engaging and including wide stakeholder involvement when developing Megaprojects along a project's lifecycle.

Furthermore, an interviewee felt that there should be greater involvement of the private sector while formulating the FYP, to resolve issues relating to planning and implementation through the use of the private experiences. Priemus (2008) noted the following:

*“Often, the preparation and realisation of a mega-project is a risky business. Politicians are increasingly displaying a preference for public-private partnerships. Private players are being recruited in entrepreneurship, creativity and risk-awareness – areas where they are, quite simply, superior to public sector organisations”*

Regarding the FYP budget, the analysis showcases that the FYP proposed budget is formulated by the Ministry of Planning, which later holds meetings with the Ministry of Finance and the concerned ministry to formulate the final budget. The Ministry of Finance prepares the yearly preliminary budget based on these meetings; a final review by the Ministry of Finance based on income and spending is divided sector-wise, with a cap on each sector. Then the ministry releases the actual budget, dropping major projects based on the policies and priorities that were negotiated in meetings between the ministry of planning and

the concerned ministry. As an interviewee noted, past projects were erased from the plan by the representative of the Ministry of Finance based on their spending policies, with no intervention by the representative of the ministry of planning, even though they were within the boundaries of the FYP.

The analysis concluded that within the institutional set up for the FYPs decision-making, the Ministry of Planning controls the direction of the FYP. As noted above, the Shura council members felt they have minimal influence on the FYP. The BOE and the Council of Economics and Development both noted their minor involvement with the FYP formation, and so did other governmental institutions. This aspect builds up a high centralisation process in the formation of the plan that leaves many stakeholders behind. Later, this process leads to oppositions by stakeholders that break up the national vision. The analysis demonstrated that while the Ministry of Finance does not intervene in the vision and formation of the plan, it holds the final say in the execution of the plan, which causes confusion with other governmental institutions and changes their direction of development. It was noted in Chapter two that all programmes and projects must be from the FYP. The analysis outcome shows contradictions to these laws and regulations. The outcome is also a confirmation of Alawaji's (2012) observation that projects rarely follow the FYP. It could be argued that the Ministry of Finance should be included in the formation of the FYP as early as possible in the early drafts aimed at reducing their opposition and not be transformed into a "stakeholder opposition." An argument by Dimitriou et al. (2013) states that MIPs that are developed with low stakeholder involvement would cause two issues – "lost opportunity" and "stakeholder oppositions".

Due to the Ministry of Finance's strong grip on MIP and FYP development, as interviewees note, no project is approved without their approval. It is as if the Ministry of Finance unintentionally disbands the work of the Ministry of Planning (wasting time and resources), which brings us to "stakeholder opposition" of

closed systems (low stakeholder involvement), leaving government institutions forcefully following the policies and visions of the Ministry of Finance. Too and Weaver (2014) argue that an organisation must ensure the strategic alignment of its projects, decentralisation of decision-making powers, rapid resource allocation, and participation of external stakeholders. In the Saudi context, these are absent except for the strategic alignment of its projects through the FYP, although the FYP itself has been shown that the Ministry of Finance seems to be in control of its budgetary and implementation, changing or altering its plan in major aspects. Further, Priemus (2008) notes that it is critical for an MIP Planning process to define “boundaries and constraints” at the earliest stage of planning to avoid later conflicts. In the Saudi context, financial boundaries are not set by the Ministry of Finance until after the completion of the plan. Thus creating a conflict between the Ministry of Planning and the Ministry of Finance.

The analysis shows that the Ministry of Finance and the Ministry of Planning have conflicting views. The high level of centralisation causes a break in the FYP vision. As mentioned above, the flow of the programmes and projects follows the yearly budgets developed by the Ministry of Finance and does not follow the FYP framework and proposed budget. The analysis points out that the conflicting views between two of the leading institutions within the Saudi Arabian context cause a great deal of damage to the overall vision and planning process of MIP development. This issue, that is, the conflicting views between the Ministry of Finance and the Ministry of Planning can cause a break from the FYP framework. If this process continues, a process of battling between the two governmental institutions will create further risks for the Kingdom of Saudi Arabia’s MIPs long-term planning.

The conflict between the Ministry of Planning and the Ministry of Finance made the FYP a series of guidelines rather than a commitment that must be followed. As the main direction of planning is the yearly budgets developed by the Ministry



of Finance, the cap of spending imposed by the Ministry of Finance is the primary guide for each governmental institution to work on, reducing the importance of the FYP framework. Interviewees cited this as an issue that causes altering of the FYPs implementation solely as per the policies and objectives of the Ministry of Finance. This leaves other ministries stumbling and sometimes forces them to remove themselves from the FYP framework. A retired minister of transport noted the following With regard to their MIPs development:

*“It flows from the ministry itself, thus from the ministry to the Council of Ministers. Doesn’t require the FYP”*

This explains how some ministries develop their own visions that are in tune with the views of the Ministry of Finance rather than with the FYP. The FYP is thus only a guideline, and ministries strictly follow the yearly budgets, indicating the powerlessness of the planning ministry, even though the regulations clearly state that all major projects must follow the FYP (Ministey of planning, 2013). Hvidt (2013) argues that national plans of the gulf cooperation council countries (Saudi is one of them) are not implemented efficiently. He further adds that they could be viewed as “window dressing,” as seen from the following:

*“... they can be seen as a part of the government’s communication strategy and might, for example, comfort the population by addressing problems they are facing, such as housing shortages, health care issues etc.; or they might prepare the population for major reforms to come, such as changes in retirement bonuses or cuts in public sector jobs; or they might be a signal to international investors or creditors that the economy is well managed”*

In a study that provided guidance to organisations in the development of effective project governance, Too and Weaver (2014) state that the main issues of project failures include lack of support and conflicting objectives. Despite a ruling by the Council of Ministers in which all budgetary decisions of government institutions should strictly follow the FYP goals and agenda, the Saudi context has

shown evidence of lack of support for the FYP and conflicting objectives. In reality, there is a struggle between the Ministry of Finance and the Ministry of Planning that causes alterations in the FYP implementation, due to the policies and objectives of the former.

An interviewee, referring to the strategic planning of MIPs, argues that mega projects should be developed in such a way that there is a strategic relationship between them in delivering long-term goals. He further argues that communication among government bodies must be greatly expanded, citing the lack of a functional relationship among the finance ministry, planning ministry and the ministry concerned while planning programmes and projects to be a major issue. The analysis results conclude an issue of communication between the triangle of the ministries of finance, planning and other interested government bodies. Interviewees noted that within this triangle of communication, the Ministry of Finance views and holds the final say, even in abandoning aspects that were highlighted in the FYP. This aspect highlights the importance of collaborated effort in decision-making, from the start till the approval. Enforcing an open system with a wide stakeholder involvement from the beginning will yield a more stable and progressive outcome that can produce MIPs based on national goals, following a hierarchy of national plans.

This issue of the lack of stakeholder involvement is seen through two stages: the centralisation of the FYP planning and the centralisation of the implementation of the FYP. These two centralisation points, firstly by the formation phases and secondly by the implementation phase, are each handled by two different institutions. The Ministry of Planning handles the formation of the FYP, and the Ministry of Finance is responsible for the approval of all MIPs and the FYP. As noted above, the clashing of views between both ministries has created an organisational issue that pushes development of programmes and projects on the mega-scale outside the FYPs framework as noted above. This institutional

struggle manifests into a *broken vision that risks the ability to commit to long-term goals*. Dimitriou et al. (2010) noted that sustainable institution is a principle of MIPs sustainable development. They argue that MIP development extends across decades, thus requiring institutional structures and processes that can ensure a continuity of its vision and follow a hierarchy of strategies and plans. In this case, the Saudi context should be committed to the FYP, which is principally based on the government's long-term visions. The reality of not following such a plan raises the risk of unsustainable programs and projects. The Saudi context must provide continuity of visions by following a hierarchy of national plans and providing a strategic implementation of MIPs that fulfils the primary principle of a sustainable institution. Allport (2011) and Williams and Samset (2010) further asserts on this aspect as they argued that an MIPs success is achieving the strategic intention of a government's policies and goals.

#### 7.1.2 Internal aspects affecting Mega infrastructure projects and the Five-Year Plan Planning and development

There are internal effects within the Saudi institutions that the analysis showcased which affect MIP development and their connection to FYPs. The main aspect to consider is the reality of political champions within the set up of decision-making for MIPs.

The interview data displays certain pieces of evidence of political champions, those that become decision makers regarding MIPs approval. Dimitriou et al. (2013) explain political champions as powerful politicians that provide mega projects with sustained political support, ensuring timely project delivery against all the odds. However, he notes that political agendas can take a toll on strategy formulation/implementation. In this context, within Saudi, a political champion is an individual who can influence the King. The analysis showed that specific projects were conceived through the vision of individual ministers who had influenced the King. The Saudi political structure is a total monarchy in which the King is considered the highest authority. Thus, influencing the King to develop

MIPs, if successful, would grant, to a certain extent, the approval of MIPs. In an interview, a member of the Shura Council stated the following:

*“The decision maker might have a point of view which is different than the Ministry of Planning. For example, the 14 billion SAR budget of projects requested by an influential Minister of Education due to his influence on the King”*

This outcome suggests the reality of political champions in the Saudi context, in which influential ministers can secure approval for MIPs. A political champion can play a decisive role in helping a MIP overcome major detrimental bureaucracy; on the other hand, the champion might increase the risk in the long-term planning goals developed by a national framework. Political champions open a door of risk, to conceive visions of projects based on a much lower stakeholder involvement, risking the creation of an MIP developed outside the FYP framework. Priemus (2008) highlighted the issue of free riders within government institution that does not bear the costs. He adds the issue in which different rational players will conclude different ranking of alternatives when they consider their own costs and benefits. Flyvbjerg (2011) also noted the risks of the involvement of powerful politicians on the decision-making process. He argues that those with power can easily confuse their subjective perspective with rationality, viewing their own perspective as the rational decision. Rationality would be powerless to their views, and this issue produces an unequal relationship between power and rationality and withholding the benefits of communication. If this issue cannot be resolved through the wider stakeholder involvement, then another step would go further by forming a council that is independent and able to ensure that distribution of MIPs is free from political influences.

Political championing in approving projects, which can be argued, is a factor contributing to disrupting the FYP commitment and vision. Furthermore, it could

later reduce the cap on spending after the project is approved by the Ministry of Finance, thus reducing the capability of future implementation programmes and projects from the FYP.

The existence of political champions creates great stakeholder opposition that damages the Ministry of Planning vision and the FYPs framework, impacting the strategic placement of MIPs and their development. This is an essential factor to consider as Dimitriou et al. (2013) note that MIPs ability to deliver their intended goals and policies is based on their ability to follow a long-term vision and a hierarchy of plans. Within the Saudi context, the analysis results demonstrate that there is an inability to follow a hierarchy of plans and commit to mid-term visions such as the FYP. Strauch et al. (2014) argued on the negative aspects of working outside clear policies and national plans, as he noted that in the event of developing major projects that are detached from an overall plan, development plans become downscaled, thus creating power geometries. A symptom that is clearly displayed within the Saudi context is the existence of political champions who steer institutions outside the development plan, playing into power geometries. Which Strauch et al. (2014) notes, can risk producing ill-planned and unsustainable projects. The outcome of the analysis also indicates that the Minister of Finance is a political champion within the Saudi context.

Another aspect that can sway government institutions to abandon the FYP, as noted by the analysis, is that the state of the FYP is not very detailed and measured on right criteria, leading government institutions to work on their own independent strategies. Several interviewees argue that a detailed execution plan, a schedule, and criteria to measure the success of the plan are critical aspects that are missing and that, if added, can help MIP development and strengthens its connection to national plans. Bruzelius et al. (2002) added on this aspect of the importance of including clear objectives and instruments of measuring how objectives are being met and how to reward good and penalise

poor performance. They add that one of the shortcomings of appraisal and development of MIPs in the conventional approach is the lack of such mechanisms. They also note that including clear criteria and indicators for measuring goals fulfilments not only benefit the developing of major projects but also rise accountability in MIPs.

There is a need to accept a criteria developed by a wide stakeholder involvement. As Samset and Volden (2016) argued that the strategic performance for MIPs is to be measured by the outputs of the project as wider aspects of a longer-term vision, that it provides a sustainable impact and remain relevant throughout its lifespan. They further add that success for MIPs does not follow the iron triangle and that the interpretation of success differs from one institution to another and from one individual to another. Therefore, each MIP will be measured differently depending on the values, preferences guiding the project and the degree to which individuals are affected by the project. **Thus it is important to have a clear criteria and a unified vision.**

Another internal issue that is also created by the low stakeholder involvement in the formation of the FYP in certain circumstances is that government bodies are burdened with goals that are impossible to be implemented by themselves. Their financial and human resource capabilities are bounded with certain limitations. Such issue can be overcome with wider participation of FYP formation process to set more realistic targets. Unrealistic characteristics that do not consider the limitations of Saudi institutions and economic capabilities, risk FYP to not implement itself fully.

Morris (2013) argues that major projects that were found with difficulties of success and development were having issues such as changing sponsor strategy, unclear success criteria, inadequate human resources, and unsupportive political environment. Changing sponsor strategy is seen in the conflicts between the FYP

and the Ministry of Finance. Unclear success criteria have been noted by the interviewees as needed measures to accompany FYP and its major programs and projects. Inadequate workforce was also noted by the analysis as that sometimes the FYP impose big targets that are out of reach of governmental institutions capabilities and can produce less successful attempts in implementing the FYP and its major projects.

### 7.1.3 External aspects affecting Mega infrastructure projects and the Five-Year Plan Planning and development

There is an external issue seen in the analysis that can alter MIPs planning and development. An additional problem related to execution and budget of the FYP. On the aspect of the budget, several interviewees noted that the problem emerges from the nature of the country's economy, which is based on oil. The FYP can be impacted and changed based on the oil market. If the oil market witnesses a drop in prices, funding becomes limited to the FYP, causing it to be trimmed and become ineffective in delivering its goals. This aspect emphasises the fragility of the economic engine.

The changing oil market has a significant effect on the development of MIPs. This aspect that was noted in early chapters was presented again in the analysis results of Chapter six. However, it is important to note that a crash in the world market affects national plans and MIPs development, *as do a jump in oil prices* which will produce new MIPs outside the FYP framework. A Shura Council member noted as follows:

*“we find ourselves with high funding, for example within the king Abdualh period mega projects were spread as the oil market was generating high earnings”*

It could be argued that the jump or drop in the oil market will affect mid and long-term planning. The crash or boom of the Saudi oil engine is a significant obstacle to long-term planning within the current planning and decision-making

structure. An interviewee noted on why a boom in the oil market produces MIPs outside the FYP framework. He notes that it is due to the Saudi fixation on pushing the growth limits and follows ambitious targets. Two aspects can trigger this ambition: first, by political champions within the Saudi context and, second, by the sudden booms in the oil market that builds up funding sources that were not anticipated while planning national plans, which create and approve major projects outside the FYP framework. The combination of these two aspects builds up opportunities for multiple MIPs developments that were never intended or designed within the FYP framework as seen in the analysis presented in Chapter six. What further cements this fact is that the Saudi Arabian Oil Company (ARAMCO), which is a national petroleum and natural gas company, has been used by political champions or government institutions to fast-track newly-approved MIPs. One Shura member noted the following:

*“Due to very pressing need for growth which has caused the government to produce projects in a very fast rhythm. For instance, Aramco is appointed to handle projects outside its expertise such as stadium aljohra. This is due the fact that Aramco is one of the most developed governmental institutions that they use to escape bureaucracy when they have no time for it”*

ARAMCO has become highly skilled in developing fast approved major projects and is used by ministries in cases requiring a fast decision-making process, outside the FYP framework. There appears to be an attitude in the Saudi government to initiate mega projects when oil prices boom, created through political champions, driven by their own vision of growth and development and even using other institutions like ARAMCO to jump-start these projects.

It could also be argued that the Ministry of Finance is the final decision maker in MIP, is an outcome that was created through the manifestation of the unstable context and oscillatory wealth that necessitates a high authority to intervene powerfully and shuffle priorities. The constant changes in the Saudi wealth



established a strong central government, which provided a treasury that focusses more on the short-term goals rather than the long-term goals. Thus, anything that commands huge sums of money, such as MIPs, would always be tested on the Ministry of Finance's visions and policies rather than the national plans' goals and visions. The Ministry of Finance has developed a centralised structure in the approval of MIPs. It could be argued that, based on this aspect, a culture of decision making was created where planning and decisions of MIPs heavily influenced by the Ministry of Finance due to its firm grip on all government institutions. For example, the interviewees noted that there is no guarantee of the MIPs being in the FYP framework, rather its approval depends on how the Ministry of Finance relates the programmes and projects to its economic visions or goals and benefits.

## 7.2 Conclusion

Research regarding MIP development of the Saudi context within the thesis focused on the macro institutional set up of decision-making for such projects, how they are conceived, their relationship with FYPs and the realities of MIPs planning. The research also aimed to provide an explanatory perspective based on collected data from key governmental officials' interviews on the realities and dynamics of the Saudis' set up of decision-making.

Within the Saudi context, there is a culture of decision-making that plays into power geometries when developing MIPs. This attitude may come to be and flourish due to the conflict between the Ministry of Planning and the Ministry of Finance's visions. These conflicts created an institutional culture where government agencies abandon FYPs and produce agents of change such as MIPs through power geometries. MIPs, instead of its development dictated by national plans are sometimes envisioned by political champions such as powerful politicians or strong institutions, i.e the Ministry of Finance. This reality rises the

risks of planning major projects outside a hierarchy of national plans and long-term goals.

There is a need to resolve conflicts of visions within the institutional set up of decision-making through a wider stakeholder involvement while developing MIPs. There is also a need to include a clear decision-making process that must be protected and governed while implementing national plans frameworks decision-making process. Doing so would improve the chances of executions of FYPs and MIPs that follow such plans. Strategic development of MIPs can be affected by high centralisation levels and needs wide stakeholder involvement while developing mid-term national plans that focus on MIPs development. Not only a wider stakeholder involvement is needed but also developing precise criteria's to measures goals fulfilment. Doing so would help produce a greater accountability and would be a key factor into avoiding such institutional conflicts in the decision-making and implementation, as recommended by the interviewees.

There is also a crucial issue affecting the Saudi MIP and FYP developments. The kingdom is highly dependent on its oil revenues. The changing dynamics of the oil market can also be a factor in changing and altering or postponing FYP although this aspect is to be expected and can be overcome with careful contingency methodologies. It is the boom in the oil market that can fuel generous MIPs development and play into developing such projects outside national plans frameworks. As the conflict of visions between critical institutions and the realities of political champions within a period of generous oil revenues will create a thriving environment of MIPs outside the careful frameworks of national plans. It could also be argued that contexts that rely on a natural resource and are characterised by oscillatory wealth would create high centralisation of planning and decision making for megaprojects or mega programmes.

# Chapter VIII

## Conclusions and Recommendations

## 8. The Kingdom of Saudi Arabia: The institutional setup of Mega infrastructure projects and National Plans planning and development

The research has studied the planning and decision-making process relating to Mega infrastructure projects (MIPs) and National Plans in the Kingdom of Saudi Arabia. National visions provide a clear path towards achievement and accomplishment. They are the translations of a nation's ambition to overcome some of its greatest weaknesses and to exploit its strengths. The Five-Year Plan (FYP) is an instrument that has been used since 1970 in the KSA. The research studied the effects of FYPs on MIPs on planning and decision-making, as well as the ability to follow a hierarchy of plans.

The research concludes that the FYP, used as a framework for major projects and programme development, has been found to possess several issues in regards to implementation (Chapter seven provide detailed reasoning for such a state). The vision of the government is broken, and power geometries are the trigger points of MIP development rather than planning frameworks. The government is not always committed to the programmes and projects listed in the FYP, thereby producing MIPs from fractured visions.

The strategic aspect of the planning and development of MIPs in Saudi Arabia needs to be reoriented. Saudi is dealing with pressing issues such as the geopolitical location, the oscillatory nature of its oil profits, future risks of climate change and water scarcity in the desert country. This has increased the need for investment in institutional capabilities for formulating national plans and implementing them, ensuring the fulfilment of long-term goals.

Chapter eight begins with a reflection of the original aims and objectives of the study in Section 8.1. Section 8.2 provides recommendations based on the research outcomes, while Section 8.3 discusses the scope for further research.

## 8.1 Revisiting the aims and goals of the study

The research had two aims that created six objectives, which can be summarised as follows:

- Understanding the macro institutional set up of decision making for Saudi's Mega infrastructure projects and determining its issues and how they have manifested within the Saudi context.

*The **first objective*** was understanding the context of planning and decision-making for mega projects in the Kingdom of Saudi Arabia, and this was covered in Chapter two of the thesis. It examines the decision-making structure and the authorities of planning within the kingdom along with the executive and regulatory authorities' roles in MIP planning and development. The objective helped in developing the pool of interviews. The objective also sought to understand the FYP and its role in MIP planning and development. It concluded that there is an unclear understanding of the decision-making structure of the MIP planning and development and that an investigation into the institutional setup of decision-making can be beneficial.

The ***second objective*** of the research was conducting a literature review. This objective provided a starting point for the research. It argued that MIPs are born from either a National Plan, a mega event or an emerging goal. The literature chapter further noted that MIPs are difficult to plan and develop, and there are several issues that can result in negative outcomes for MIPs. One of the identified issues from the literature was the institutional setup that governs the MIP decision-making. The chapter further noted on this aspect that when studying MIPs decision-making process, it is important to consider the people factor. The culture of institutions' planning and decision-making is always in need of investigation from context to another. This created an opportunity for filling a

gap of knowledge which is understanding the Saudi institutional setup of decision-making in regard to MIP planning and development characteristics

The **third objective** of the study was conducting a pre-research stage in the form of an exploratory study using a small sample of questioners with the regulative and executive authority to uncover the main goals of the Saudi government. This process also relies on both present and historical data, including early FYPs goals. This objective aims to further understand the Saudi context and its peculiarities. It provides the research with contextual knowledge surrounding the topic.

Chapter six constitutes the information presented on the **fourth objective**, which is conducting an explanatory study through interviews with key decision-makers. Fifteen semi-structured interviews were analysed to provide perspectives on the reality of the institutional setup of decision-making within Saudi Arabia. It helps in filling the identified gap of knowledge. The **fifth objective** provides a discussion regarding the macro institutional setup of decision-making for Saudi's MIPs and determining its issues and understanding why they have manifested within the Saudi context. This objective also carries benefits that serve the second aim which will be argued upon below.

- Providing contextual knowledge that generates guidance and recommendations to effective planning and decision-making for the Five-Year Plan and Mega infrastructure development in Saudi Arabia.

The second aim of the research is represented by the fifth and sixth objectives. The **fifth objective** was to provide a discussion on the outcome of the analysis to present further knowledge and lessons. This objective was analysed in Chapter seven which provided a discussion on the results and what can be taken from them in order to extend contextual knowledge for MIP planning and development in Saudi. The **sixth objective** suggested recommendations for

effective planning which are within this chapter and is the final part of the second aim.

## 8.2 Recommendations

The recommendation section is detailed across two sub-sections. There is a recommendation for the overall institutional setup of decision-making in Saudi Arabia and the recommendations for the FYP formation stages.

### 8.2.1 Recommendation for the overall institutional setup of decision-making for Mega infrastructure projects in Saudi Arabia

This research provides the following three recommendations:

1. There is a need to reduce the centralisation in the process of formulating the FYP as argued earlier in chapter seven. Hence, formation of a new council with the aim of ensuring wide stakeholder involvement in the drafting of the FYP is recommended. This council will have sufficient stakeholder involvement required to develop the FYP and ensure that the inputs for the plan comes from all stakeholders, rather than just the Ministry of Planning. Wider stakeholder involvement as argued in chapter seven will greatly reduce stakeholder opposition in the implementation stages. If this recommendation is not implemented, it will invite the risk of breaking up of visions and the commitment to a hierarchy of national plans. Furthermore, chapter six reveals that the final decision-maker in the approval of the MIPs is the Ministry of Finance, creating a point of centralisation. It is recommended to reduce the centralisation of the project approval done by the Ministry of Finance to improve the implementation of the FYP. Another recommendation is for the setting up of an independent council for overseeing the implementation of the FYP, thereby ensuring that it is not impacted by the decisions or policies of the

Ministry of Finance. Its purpose should be to ensure that the programmes and projects are within the FYP framework.

2. The two recommended councils should be of independent nature. However, as indicated in Chapter Two, the Kingdom of Saudi Arabia is a full monarchy, ruled by a King. The King must only be the final authority. The two councils would oversee the FYP from the initiation stage till its implementation and completion, ensuring that every stakeholder is part of the planning and implementation process. The two councils would help overcome the negative aspects of centralisation that has been shown and mentioned in Chapters Six and Seven.
3. Chapter seven discusses the existence of political champions who are influential ministers. The two new councils need a high degree of independence and must not consist of the Council of Ministers or the Shura Council members. The council must comprise of members with varying expertise and develop criteria for each stage of the FYPs formation and implementation. Though the influence of political champions may be beneficial at some point in securing approval for and in the implementation of the much-needed MIPs, it also (as argued in chapter seven) poses a risk vis-a-vis the commitment to the FYP, resulting in MIPs that do not have the strategic impact of long-term benefits. This will result in the implementation of MIPs that that may become sunk costs and can never be recovered, thereby effecting the economic status of the Kingdom.

#### 8.2.2 Recommendation for the Five-Year Plan formation

The research can provide certain recommendations to the decision-making process for the FYP with the aim of resolving issues identified in chapter seven.



The alteration is a rearranging of the formation process and/or altering certain stages that can help overcome the issues found in the research.

The current decision-making process for the FYP as noted in chapter two is divided into four stages:

- Preparation stage
- Stage one
- Stage two
- Stage three

Each stage will be altered and modified based on the issues established from the thematic analysis in Chapter six and discussion in chapter seven. The following is the altered decision process:

#### *8.2.2.1 The preparation stage*

The current preparation stage of the plan is as follows:

1. Form working groups within the Ministry of Planning.
2. Form the overall objectives of the plan, policies, and implementation mechanisms.
3. Evaluate the economic and developmental evolution during the last period.
4. Conduct support studies for the preparation of the plan.
5. Draft the plan preparation guide.

The main issue in this stage is that the plan's goals need to be drafted too early, even before a detailed study of the context. It could be argued that all contextual studies that are to be conducted in the later stages (stage one and two) should be pushed back and conducted as a first step within the preparation stage to provide a better understanding of the context issues before finalising the goals.

Thus, the new recommended preparation stage will focus on conducting studies that provide “contextual knowledge.”

Another issue is the limited stakeholder involvement exclusive to the Ministry of Planning at this stage. The recommendation is to form a working group that includes all stakeholders who will be involved in the process. The interviews in chapter six raise this issue and expresses the need for better stakeholder involvement. Thus, the process recommends a change to include all ministries and government institutions and the Shura Council. The Shura Council would also form further committees that include public stakeholders. The current process forms working groups much later, even after post goals realisation. According to the discussion in chapter seven, this aspect is a major dilemma. Chapter seven established the need for a wider stakeholder involvement in the earliest stages. Thus, all stakeholders need to be involved in the process. Instead of forming groups within the Ministry of Planning alone, this stage will include

- Forming working groups within every Ministry and government institution.
- Forming working groups within the Shura Council.
- Forming working groups of public stakeholders.

Public stakeholder input will be arranged by the Shura Council due the nature of involvement of the Shura with the public as they receive from them more than 8000 recommendation letters annually as noted in chapter two. Moreover, they are one of the most active public involvement groups of any government agency.

Once contextual studies are conducted, the formed working group would assess and define the deep-rooted issue that the context faces. It is critical to include wide stakeholder involvement as some groups will perceive problems differently than others. What is considered a contextual issue to some might be considered as a minor issue to others. Having a wide stakeholder involvement would more broadly cover the main contextual issues and produce all-encompassing critical

goals for the FYP.

The following is the recommended process for the preparation stage:

- 1) Contextual studies and all such studies in stage two for government agencies and the FYP should be included in this early stage which include the following:
  - Evaluate the economic, social and environmental developmental evolution during the last period. Although this is already done in the preparation stage, it has been altered to include social and environmental aspects.
  - Review the previous FYP including all multiple studies found in stage two regarding the FYP.
  - Clarify domestic and international developments affecting the work of ministries and government agencies, and pose opportunities and challenges before them as well as the impact on the proposed goals and policies in the development plan.
  - Evaluate each agency's performance according to specific criteria and indicators and connect those criteria and indicators with the policies and programs.
  - Conduct an analysis of the demand for services provided by the government and quantitatively assess current and future needs in the kingdom.
  - Conduct studies and provide information and data required for the preparation of the development plan for each ministry or government agency plan.
  - Show organisational aspects, including institutional and regulatory developments in the party, or parties in other sectors that can affect the activity of an agency.

2) Form working groups.

#### *8.2.2.2 Stage one*

The current steps in the process for stage one is as follows:

- Deliver the plan preparation guide to ministries and government agencies.
- Form work teams in the ministries and government agencies.
- Hold meetings and workshops to explain the procedures necessary to prepare the plan for the teams working in the ministries and government agencies.
- Hold meetings between the teams in the Ministries of Economy and Planning and government agencies to coordinate views on the stages of preparation, the general objectives and mechanisms of implementation and the programs and projects needed.

Because the recommended preparation stage now produces contextual analysis through wider stakeholder involvement, this stage in the new recommended process will identify stage one as the generator of the plan's goals using the same stakeholders. Furthermore, a significant issue discussed in chapter seven is the conflict between the Ministry of Planning and the Ministry of Finance. Financial boundaries are not set by the Ministry of Finance until after the completion of the plan. However, this needs to be understood in the early stages as the FYP faces conflict with its stakeholders in terms of execution and budget, an issue highlighted in chapter seven. Drawing financial and capability boundaries would help ease these conflicts. Additionally, interviews suggested that there are limitations on what each agency can do because some goals are bigger than them. Thus, the updated stage will list boundaries and constraints on the Ministry of Finance (financially) and several governmental agencies (capabilities). Another issue is that the Ministry of Finance is usually included as a decision-maker only after finalising the FYP, in which they then struggle with the

Ministry of Planning and other agencies. This eventually defuses the work of the FYP. The decision-making process will be altered in the following ways:

- Form the overall objectives of the plan, policies, and implementation mechanisms.
- Identify main constraints and boundaries.
- Develop criteria for the FYP goals.
- Determine the methodology and future directions of the plan.
- Conduct support studies for the preparation of the plan.
- Draft the plan preparation guide.
- Hold meetings and workshops to explain the necessary procedures to prepare the plan for the teams working in the ministries and government agencies.

#### *8.2.2.3 Stage two*

Stage two in the current FYP process is as follows:

- Presentation of the current status from the previous development plan that includes; achievements made in the light of the plans objectives in quantitative and cumulative form and to clarify the actual credits and expenses compared with the planed funds.
- Clarify domestic and international developments affecting the work of ministries and government agencies, and poses opportunities and challenges before them, and the impact on the proposed goals and policies in the development plan.
- Evaluate each agencies performance according to specific criteria and indicators and connecting those criteria and indicators with the policies and programs.
- Illustrate the challenges and obstacles faced by the implementation of previous development plan, indicating the measures taken or proposals to address them.

- A review of what has been achieved in addressing the issues contained in the previous development plan, identification of emerging or expected issues that would continue during the next plan, the core issues, the proposed steps to address them.
- Conduct studies and provide information and data required for the preparation of the development plan for each ministry or government agency plan.
- Analysis of the demand for services provided by the government, and it aims to assess the current and future needs in the Kingdom quantitatively.
- Showing organizational aspects, including institutional and regulatory developments in the party, or parties in other sectors that can affect the activity of an agency.
- The preparation of the general objectives of the ministry and government agency, policies and implementation mechanisms to achieve them.
- Arranging overall objectives, policies and implementation mechanisms, according to priority, giving a specific weight for each goal, with emphasis on the principle of " results-based planning " which determines the output via digital indicators that measure the extent to which the policies of the objectives have achieved, not just quantitative indicators to measure rates of project implementation. Programs and projects must be linked to the goals of the policy.
- The ministries and government agencies must submit proposals for their programs and projects enhanced with initial feasibility studies, proposals will showcase the objectives of the program or project, the cost of investment and operation, geographic location, sources of funding and the timetable for its implementation.
- The distribution of programs and projects of ministries and government agencies must be based on a planning criteria that determine

development priorities for every region in the country to achieve the objective of balanced development.

- Prepare a draft plan for each ministry and government agency according to a timetable.
- Attend workshops to introduce the FYP and how to use it.

All studies noted above that are related to the context of Saudi Arabia are recommended to be done earlier in the preparation stage. Thus, this recommended updated stage should only keep stages focused on programs and projects. The recommended rearrangement of steps in stage two are as follows:

- Proposing programs and projects.
- Distributing programs and projects.
- Preparing a draft plan for each ministry and government agency according to a timetable.
- Forming workshops for using the FYP plan.

#### *8.2.2.4 Stage three*

The current stage three, through the Ministry of Planning represented by the working groups of the ministry discusses and reviews the ministries' and government agencies' plans and evaluates and prepares a proposal (counter proposal). The steps involved in stage three are as follows:

- The Ministry of Planning reviews the projects of ministries and government agencies plans and evaluates and prepares a proposal (counter proposal).
- Completion of the audit and the agreement with the teams in the ministries and government agencies to prioritise projects.
- Preparation of operational plans for each ministry or government agency according to the model of the operational plans prepared by the ministry and, then, consolidated into a coherent overall development plan.

This stage is to remain the same with only minor recommended aspects. In the new decision-making process, this stage would remove the Ministry of Planning as the finalizer and reviewer of each government agencies proposals will be done by a wider stakeholder involvement. Doing so would remove future conflicts when implementing the FYP. The FYP would be monitored yearly in the case of the negative or positive impacts by the geopolitical location or oscillatory revenues of oil exports, which can be overcome with prepared mitigation plans.

### 8.3 Scope for further research

This research offers contextual knowledge that can be further built upon. First, based on the evidence of the existence of political champions, research can be conducted to assess whether projects born from political champions noted in the research impacts on the long-term benefits of MIPs in economic, social and environmental terms and their contribution to long-term visions. This can be of benefit in critiquing the realities of political champions and identifying their positive or negative impacts.

Second, the research argues the need for wider stakeholder involvement for the development of MIPs and mid-term national plans. Thus, further research should be done on creating a stakeholder map. This is vital to address further development in the stakeholder involvement in National Plans and MIPs within the kingdom. Further research must be done to identify all the stakeholder participants while formulating the FYP, determining who must be included during the planning process and at which stage. Understanding is also needed on who should be defined in the stakeholder process, whether the current governmental institutions are sufficient, and so on. Research is needed, first, for identifying the stakeholders and, second, to create a decision structure that can cover all identified stakeholders.



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## 10. Appendix

The appendix section will be split into the following:

- Appendix A questionnaires
- Appendix B Interviews transcripts
- Appendix C Thematic analysis
- Appendix B ARCOM paper

### 10.1 Appendix A questionnaires

S1	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	8
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	8
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	9
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	8
6	To raise the standard of living and improve the quality of life of all citizens.	8
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	9
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7

9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	10
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	9
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	8
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	7
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	9

S2	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	3
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	9
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	9
6	To raise the standard of living and improve the quality of life of all citizens.	9
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	5

8	To move towards a knowledge-based economy and consolidate the basis of an information society.	6
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	6
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	6
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	7
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	2
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	1

S3	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	2
6	To raise the standard of living and improve the quality of life of all citizens.	4

7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	3
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	2
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	5
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	9
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	4

S4	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	1
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	10
4	To achieve balanced development among regions of the Kingdom	8
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	8



6	To raise the standard of living and improve the quality of life of all citizens.	7
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	6
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	10
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	10
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	10
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	4
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	10

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<b>S5</b>	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	5
4	To achieve balanced development among regions of the Kingdom	9

5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	4
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	6
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	2
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	8
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	3
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	3
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	2

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<b>S6</b>	<b>Goals</b>	<b>Weight (1-10)</b>
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	2
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8

4	To achieve balanced development among regions of the Kingdom	6
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	5
6	To raise the standard of living and improve the quality of life of all citizens.	4
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	9
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	1
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	3
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	3

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<b>S7</b>	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9

3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	10
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	8
6	To raise the standard of living and improve the quality of life of all citizens.	7
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	6
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	4
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	3
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	1
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	2
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	1

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<b>S8</b>	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10

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2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	6
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	2
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	5
6	To raise the standard of living and improve the quality of life of all citizens.	3
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	8
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	1
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	5
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	2

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<b>S9</b>	Goals	Weight (1-10)
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1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	5
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	5
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	8
6	To raise the standard of living and improve the quality of life of all citizens.	5
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	4
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	7
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	6
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	9
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	3
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	4

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S10	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	9
4	To achieve balanced development among regions of the Kingdom	8
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	3
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	2
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	4
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1

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| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it. | 1 |
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S11	Goals	Weight (1-10)
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1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	6
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	4
6	To raise the standard of living and improve the quality of life of all citizens.	5
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	8
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	1
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	2
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	3



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| 12 | To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.       | 1 |
| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it. | 1 |

S12	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	10
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	5
4	To achieve balanced development among regions of the Kingdom	2
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	10
6	To raise the standard of living and improve the quality of life of all citizens.	4
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	1
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	9
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	3

11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	8
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	6
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	10

<b>S13</b>	<b>Goals</b>	<b>Weight (1-10)</b>
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	6
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	10
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	1
4	To achieve balanced development among regions of the Kingdom	2
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	3
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	8
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	2
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1

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| 10 | To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.  | 3 |
| 11 | To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities. | 4 |
| 12 | To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.  | 1 |
| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.  | 9 |

S14	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	7
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	7
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	2
6	To raise the standard of living and improve the quality of life of all citizens.	3
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	8
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	2

9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	5
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	4
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	4
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<b>S15</b>	<b>Goals</b>	<b>Weight (1-10)</b>
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1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	10
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	5
4	To achieve balanced development among regions of the Kingdom	2
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	10
6	To raise the standard of living and improve the quality of life of all citizens.	4
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	4

8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	7
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	3
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	8
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	6
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	10

S16	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	10
6	To raise the standard of living and improve the quality of life of all citizens.	10

7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	10
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	7
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	10
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	9
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	9
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	9

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<b>S17</b>	<b>Goals</b>	<b>Weight (1-10)</b>
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	3
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	9

5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	4
6	To raise the standard of living and improve the quality of life of all citizens.	2
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	5
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	6
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	1

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<b>S18</b>	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8

4	To achieve balanced development among regions of the Kingdom	3
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	7
6	To raise the standard of living and improve the quality of life of all citizens.	9
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	6
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	1
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	1
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	2
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	5
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	3

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<b>S19</b>	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9



3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	7
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	8
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	9
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	3
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	2
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	5
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	6
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<b>S20</b>	<b>Goals</b>	<b>Weight (1-10)</b>
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10

2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	5
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	2
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	7
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	3
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	8
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	9
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	4

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<b>S21</b>	Goals	Weight (1-10)
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1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	3
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	5
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	1

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S22	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	3
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	1
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	4
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	1

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| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it. | 2 |
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S23	Goals	Weight (1-10)
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1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	1
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	5
4	To achieve balanced development among regions of the Kingdom	7
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	1
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	2
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	1
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	3
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	8
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	9

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|----|---|---|
| 12 | To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.       | 1 |
| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it. | 4 |

C1	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	2
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	8
4	To achieve balanced development among regions of the Kingdom	9
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	5
6	To raise the standard of living and improve the quality of life of all citizens.	9
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	9
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	8
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	7
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	7
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency	9

and accountability, and support civil-society institutions in advancing their developmental activities.

- 12 To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries. 7
- 13 To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it. 2

C2	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	9
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	8
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	6
4	To achieve balanced development among regions of the Kingdom	6
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	8
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	8
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	6
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	8
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	6

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| 11 | To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities. | 7 |
| 12 | To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.  | 6 |
| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.  | 8 |
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C3	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	10
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	9
4	To achieve balanced development among regions of the Kingdom	10
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	9
6	To raise the standard of living and improve the quality of life of all citizens.	9
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	10
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	10



10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	10
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	10
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	10
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	10

C4	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	10
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	10
4	To achieve balanced development among regions of the Kingdom	10
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	10
6	To raise the standard of living and improve the quality of life of all citizens.	10
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	10
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	10
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	10

10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	10
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities.	10
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	10
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	10

C5	Goals	Weight (1-10)
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	10
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	9
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	6
4	To achieve balanced development among regions of the Kingdom	10
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6
6	To raise the standard of living and improve the quality of life of all citizens.	8
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	5
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	6

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| 9  | To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.   | 8 |
| 10 | To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.  | 4 |
| 11 | To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching transparency and accountability, and support civil-society institutions in advancing their developmental activities. | 5 |
| 12 | To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.  | 8 |
| 13 | To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.  | 7 |
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## 10.2 Appendix B Interviews transcripts

Shura Council	Council of Ministries	Council of Ministries/Bureau of experts	Other governmental institutions
S1	C1	C4B1	O1
S2	C2	C5B2	O2
S3	C3		O3
S4	C4B1		O4
S5	C5B2		
S6			

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**C1**

Q1. What would you recommend on improving the five year plan?	The process must always be in a permanent consult in every step, and detailed on macro level, because they translate the dreams of the country and it must be realistic and able to execute. the plan is the other side of the budget and must be in line with the it. Follow-up is very important to know the errors and pitfalls.
Q2. Does the council of economics and development and the bureau of experts have the approval authority on MIPs?	They are all linked to the Council of ministers and under it authority, they do not have the authority to approve but it generate visions, and the Panel of Experts is considered a Think Tank specific unique in the five-year plan and it takes time
Q3. What is the regular process of the five year plan?	Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet

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**C2**

Q1: Being a member of the council and minister of transport do you require a form of approval to discuss a proposed project, if so does the approval comes from the ministry of finance or the	Every government body puts their plan for 5 years and is sent to the ministry of planning, then meeting are done to discuss and review these plan between the ministry of planning finance and the intended ministry. These meetings form the plan. The problem surfaces from the nature of the countries economy. Its economy is formed around the oil economy and the five year plan is impacted with changes based on the changes of oil market. If the market is
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council other arms such as the bureau of experts?	low the funding becomes low. That the problem. Thus flexibility is needed and sometimes goals are abended. Another issues is that sometimes a government body is not capable or strong enough to deliver its goals. For sometimes the goal is bigger than the institution itself. That's why the ministry of finance is in constant interference with mid range plans.
Q2: What are the stages of any proposed project that the ministry of finance must be included in?	In the start, a study is conducted and then raised to the council which later forms comities and the ministry of finance has to be in the comity.
Q3: does the ministry rely on the five year plan on lining the projects or on its own visions or the ministry of finance visions? Or is it a shard vision?	It flows from the ministry itself thus from the ministry to the council of ministries.
Q4: Mega projects that are not born from the five year plan are they negotiated with the ministry of planning or the council of ministers?	No, doesn't require, and sometimes studies are done with private consultancy, the ministry of planning and economics do sometime intervene with other ministers that are touched by the project
Q5: what do you consider as the most negative issues on decision making for the ministry when approving a project?	The bureaucracy and the long period to study request effects the process let alone the business of every ministry.

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Q6. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?	The problem is that wealth is oscillatory and unstable and effects the plans progress
Q7. Is there conflicting policies between the Ministry of Planning (the producer of the countries policies) and the Ministry of Finance (with their own agenda and	Before yes but now with council of development the process is faster but still there is a need of developing in-house expertise.
<b>C3B1</b>	
Q1. What is the Bureau relation with other governmental institutions?	A technical governmental body that receives administrative transactions to study them from a legal standpoint.
Q2. Do you feel the Bureau is capable of dealing with every request it receives from an expertise perspective?	The bureau consists of a team of legal expertise that cooperates and when needed uses the expertise of other ministries once the study concern them
Q3. Are requests received for study have a specified time limit, is there a standard time limit for a	It depends from one study to another unless it was received with a request of timed response

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study or it varies from one study to another?

Q4. Is there a relation between the bureau and the five year plan, and if so at what stage does it start?

No, there is no relation because the bureau is only concerned with legal issues

Q5. What is the impact of the five year plan on governmental MIPs and do they require an approval from the bureau?

No, in general the flow of work and projects follows the yearly budgets and the five year plan is only guiding instructions.

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C4B2

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Q1: What would you recommend as an initiative five year plan process?

it would be better if the ministry of planning would include the private sector and be a partner in delivering the five year plan.

Q2: What is the role of the council of development and economics on the five year plan?

the council of development and economics studies the five year plan and only provide general visions and goals for the government.

Q3: To overcome the strong grip of the ministry of finance what would you recommend?

Government budgetary should be transferred from the ministry of finance to the ministry of planning.

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Q4: What would you recommend as improvement's for the decision process of MIPs?	adding a council within the council of development and economics that prepares the five year plan and coordinate between all stakeholders.
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**C5**

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Q1: Being a member of the council and minister of transport do you require a form of approval to discuss a proposed project, if so does the approval comes from the ministry of finance or the council other arms such as the bureau of experts?	<p>The council has been split into two, one for the politics and security and the second for development and economics. Thus every ministry now discusses its goals and strategy in the council of development and economics and after it discuss them its is drown into a finial form.</p> <p>Ministries work as partners in providing a clear strategy for every ministry and conducting workshops to connect each ministry with its goals and rise spending efficiency.</p> <p>The ministry of planning merges every ministry in workshops and set priorities while also identifying the first steps of the plan</p>
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Q2: does the ministry rely on the five year plan on lining the projects or on its own visions or the ministry of finance visions? Or is it a shard vision?	Any mega projects are lunched from a cooperated vision from the council of development before its raised to the council of ministries. Then conducting workshops, and now any mega project must be under the "national transformation plan".
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Q3: when the five year plan document is finished and a meeting is done between your ministry and the finance and planning, how do you come to a one conclusion, are their a matter of stages to reach that point?

For now the tenth plan is being revised through a new structure of decision process to revise the current conditions of the context.

Q4: Who are the government bodies that the ministry cooperates with when developing a project

Through the council of development and economics in meeting that are done once or twice a week and everybody is a partner in the development.

Q5: When there is a disagreement between the ministry of finance and your ministry about a mega project, do you still have the right to discuss it on the council of ministers ?

Now the ministry is part of a new decision process, being a member of a group work within the council of development. Giving priorities based on current economical conditions.

Q6: Mega projects that are not born from the five year plan are they negotiated

No project will be done unless with a carful supervision of the current satiation from the council of development and the council of ministries.

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with the ministry of planning  
or the council of ministers?

Q7: From your own perspective what would you suggest as improvements to the five year plan?

That every ministry puts a strategy into achieving their goals with great detail.

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**O1**

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Q1. Does the ministry of planning include your insight and council when formulating the five-year plan?

Viewpoints of the government bodies are received but little communications is done after that

Q2. In a case of dispute while developing a five year plan how is that resolved and who has the final decision?

I haven't seen an issue of dispute before, but the problem with five year plan is that it can not force its goals on the ministry of finance, the ministry of planning is like an old wise man that gives council but are not law banding, the problem is that its goals are wishes and not realities.

Q3. Projects proposed on a Mega level (interviewer explains) are they always based on the five-year plan.

No, there are from our own vision, and with the support of the governor. And its time for the noncentralization for local governments. For example, the ministry of municipality and rural affairs is built on non-centralization vision.

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Q4. When proposing a project how many government institutions must be negotiated with or proposed to?	Firstly with the governor and then the ministry of finance and sometimes we rely on the media as a tool of pressure on the ministry of finance
Q5. Who has the final say in the approval of your project or who are the final authorities that control its approval?	The ministry of finance
Q6. How can the current decision-making framework for Saudi Arabia be improved to foster long-term objectives of MIPs from your perspective?	<p>There should be a focus and concentration on the strategic relationship between all projects and their placement.</p> <p>There should be a council that provides communication Between government bodies, but the problem of bureaucracy forces less communication.</p>
Q7. Who benefits/losses from this current institutional framework?	The country and the government official who wants to work and provide progress. There is also a benefit to the system and that the king can overcome the bureaucracy and lessen sometimes its effect.
Q8. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process	The government I believe is not of great wealth.

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regarding ordinary  
(shorter-term) and mega  
(longer-term)  
infrastructure projects?

Q9. What would you  
recommend on for the  
five-year plan  
improvement?

Re-inspecting the relation between the finance, planning  
and the involved ministry while planning programs and  
projects and providing detailed budgets with clear  
priorities.

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## O2

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Q1. What is the relation  
between the the council of  
economics and  
development and the  
bureau of experts on  
aspects such as MIPs?

The relation is close when a project has a legal dimension  
that needs to be reviewed

Q2. What is the impacts of  
the council on the ministry  
of finance work?

The council distinguish the highest priority projects from  
the least to the ministry of finance so the ministry can  
provide support to it.

Q3. What is the main goal  
of the council?

The council is aims to resolve the issue of coordination  
between all government ministers from the beginning of  
every project or program.

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### O3

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Q1. Do the commission Projects flow in the same direction as the Five year plan intended?	Projects of the commission are in harmony with the five year plan vision and goals.
Q2. What would you recommend for the five year plan?	It should be taken into perspective the deep concerns of the commission as it works in a very dynamic context that shifts and changes a lot. That's way certain projects are out of the five year plan boundaries, due to big jumps in the telecommunication sector.
Q3. What is current approval process for your Projects?	Now any project that is proposed and beyond SR100 million is sent to the council of ministries
Q4. What is the role of ministry of finance on the flow of the five year plan budgets?	from my past experience in the university (assistant to the head of King Saud university) as I was representing the university we had meetings with ministry of planning and ministry of finance, to assure that our projects were within the boundaries of the five year plan. The issue project were erased from the plan by the representative of the ministry of finance based on

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their spending policies with no intervention by the representative of the ministry of planning.

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Q4

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Q1: What is the millstone for forming the five year plan?

You can check the updated manual done for the tenth plan for specifics.

Q2: When does the five year plan starts ?

In the last year of the previous plan and takes about a year to finish. Every year the ministry conducts a follow up report.

Q3: Do you find difficulties while gathering information from other government institutions?

Always, database knowledge is difficult to access, but that was in the past. Nowadays that have changed to the better.

Q4: who are the stakeholders that participate in planning the five year plan?

All government institutions and some private consultancy companies.

Q5: when does stakeholders participate?

Every year of the five year plan on the follow up from year one and the preparation stage for the next plan in the final year.

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Q6: what would you propose as adjustments for the five year plan?	Cancel development plan such as the five year plan and introduce reform programs. They must develop precise inductors to masseur performance. A big issue that needs to be resolved is the rearranging of the organizational relationships between the Council of Ministers and the Economic and and development and the Shura Council, not to mention the presence of a Ministry of Planning.
Q7: while forming the five year plan does it get influenced by a strong ministry such as the finance ministry or based on your vision or a wide participation of all stakeholders?	The finance does not intervene in the vision and formation of the plan but rather on the execution of the plan.
Q8: Who wins losses from the current decision process?	The citizen and the reserve fund
Q9: Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega	the return on investment of the projects in terms of profitability nationalism or national benefits have been absent. generally the kingdom is not wealthy .

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(longer-term)

infrastructure projects?

Q10: Is there conflicting policies between the Ministry of Planning (the producer of the countries policies) and the Ministry of Finance (with their own agenda and policy) on the decision process?

There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities.

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S6

Q1: Do you feel the shura has enough expertise to deal with every study requests they receive?

The Shura Council is consisted and formed from of a diversity of expertise and jurisdictions, Education, Judiciary...etc. and discuss the information comprehensively and are open for debate.

Q2. Are there time concerns when reporting back/mentoring on topics that are sent to the council?

Most of the discussed issues are completed within the time limit but not all of them.



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Q3. Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Due to our economy that changes a lot sometimes we find ourselves with high funding, and within the king Abdullah period mega projects were spread as the oil market was generating high earnings.
Q4. has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	It does not intervene, intervention is only to evaluate government institution. It never intervenes in the detail. Its perspective is only on the high vision and not the details.
Q5. What is the process of the five year plan budget, do the interested ministry gets involved?	First goals are formulated and submitted to the Cabinet and if it gets approved, they are assigned to be lifted for study, goals later will be configured into requirements and these are estimated along a five year cycle. The ministry of planning does not include the finance in formulating the budget for the five year plan. After doing the budget the finance, planning and the interested ministry set meeting to develop the final budget.
Q6. Why does the ministry does not from budget according to the five year plan?	The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterwards the ministry release the actual budgets cutting major projects based on their policy. When we address the issue with them and ask why the removal of some of

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the projects when it was approved by the council. They respond that it was the preliminary budget and that the actual budget developed by them was approved by the council.

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**S1**

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Q1: What is the relation between the shura council and the rest of the governmental institution?

Mentoring and keeping up on them from a surveillance angle. There is no relation with other institutions from a consultancy angle. The cabinet in specific does not gain council in decision's. The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).

Q2: Do you feel the shura has enough expertise to deal with every study requests they receive?

The shura members are appointed based on their expertise, as they are a selection of several experts in different fields. But we sometime hire consultants if we feel it is out of our reach. For instance we once hired several academics from King Saud University for consultancy.

Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?

We take our time in every study, because we can request a postpone every 3 months.

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Q4: What is the impact of the five year plan on the council agenda of talks?	Our main concern is the five year plan and governmental strategy.
Q5: Has the shura ever suggested MIPs as solutions for the raised issues?	Yes. For example we felt the need to develop a new mekkah airport and several railways. We call it reasoning paper.
Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	No
Q7: Is the council included in every MIP the country produces?	No
Q8: Does the council have the authority of rejecting MIPs developments?	No
Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?	Technical always
Q10: Why do you believe that some MIPs are	Due to very pressing need of growth which has caused the government to produce projects in a very fast

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produced even though they are not included in the five year plan?	rhythm. For instance Aramco is appointed to handle projects outside its expertise such as stadium aljohra. This due the fact that Aramco is one of the most developed governmental institution that they us to escape bureaucracy when they have no time for it.
S2	
Q1: What is the relation between the shura council and the rest of the governmental institution?	The shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority.
Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Yes because members are appointed are able to deal with every study as much as possible. Because members are consisted of a diversity of tribal, religion, expertise and from every part of the country.
Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	No. We have a three months period for every study, which I feel, is fine.
Q4: what is the impact of the five year plan on the council agenda of talks?	I don't feel there is an importance on the five year plan. The five year plan on its current shape is very week and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the five year plan, a time schedule and a criteria to measure the success of the work.

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Q5: Has the shura ever suggested MIPs as solutions for the raised issues?	The shura is more of a factory of regulations and policies. We are more concerned with the big picture.
Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	The shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet.
Q7: Is the council included in every MIP the country produces?	No. we receive information of projects based on ministries reports for every past year.
Q8: Does the council have the authority of rejecting MIPs developments?	No
Q9: When the council intervenes on MIPs are they from a technical or financial standpoint?	They intervene on both technical and financial standpoint.
Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	As I said earlier the five year plan is great on paper but very weak in its core and not able to cope with the needs of the country.

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Q1: What is the relation between the shura council and the rest of the governmental institution?	The shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country.
Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	I feel there is a lack of expertise on political science that causes the political consultative inside the shure to partner with consultancy and academics on a lot of actuations.
Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Yes. 3 months to study issues on the consultative is sometimes not enough. And the time that is given for discussion on the shura between the members is also not enough in some cases.
Q4: what is the impact of the five year plan on the council agenda of talks?	I don't feel there is a strong connection between it and the shura
Q5: has the shura ever suggested an MIP as a solution for specific problems?	There is no direct connection with mega projects and the shura

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Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	This is a power that only the ministry of finance has. We do monitor governmental flow of work based on yearly reports but its only for consultative aspects.
Q7: Is the council included in every MIP the country produces?	No, only the ministry of finance is included on every project. And at some point the ministry could produce a mega projects based on its own decision that is not part of its responsibility and then gives to another ministry such the princess noura university.
Q8: Does the council have the authority of rejecting MIPs developments?	No
Q9: When the council intervenes on MIPs are they from a technical or financial standpoint?	Both
Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Due to an issue of regulations and the fact that the five year plan is not very detailed and measured on correct criteria.
S4	

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Q1: What is the relation between the shura council and the rest of the governmental institution?	The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions. The shura also has the authority to request an audience with any minister of the for reviewing reasons regarding his ministry.
Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	The council includes every expertise needed. Public and private expertise. We have economist, religious scientist and lawyers and if we feel we are short on experts we have the authority to hire experts who can be of help.
Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Three months is enough to study each issue. I wish that this time period is also bounded with the cabinet and its Bauru of experts, as some issues can last for several years.
Q4: what is the impact of the five year plan on the council agenda of talks?	Its is studied. But there is a problems with the five year plan. Problems of execution and budget. The five year plan is based on 13 section. Each section is send to the shura consultative for study.
Q5: has the shura ever suggested an MIP as a solution for specific problems?	The shura does not go into specifics and that is left for the cabinet. The shuras main role is mentoring/reviewing and developing regulations.
Q6: has the majls ever intervened on MIPs on its approval process whether	Yes. On strategic projects which are having construction issues such as the industrial cites based on reports of ministry of commerce. The shura role on this stage it trying to identify the problems and suggesting solutions.

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with a rejection or  
approval?

Q7: Is the council included in every MIP the country produces? No that is not of our specialty but sometimes they are presented to the council through the yearly reports of government agencies

Q8: Does the council have the authority of rejecting MIPs developments? No

Q9: When the council intervenes on MIPs are they from a technical or financial standpoint? It is technical unless they felt there are some signs of corruption.

Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan? The governments high ambition and the availability of funds. Thus causes the executive authority to pass the government.

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S5

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Q1: What is the relation between the shura council and the rest of the governmental institution?	A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the shura does not track their recommendations.
Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Yes the council is a think tank that has 150 members in every field.
Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	It is not of a big problem to get delayed than the three months limit. But it does in some cases and the reason we get sometimes late is because some ministries do not form precise reports but rather week ones. Ministries showcase their positives and if there is an issue they show it as demands and do not mention it as negatives.
Q4: what is the impact of the five year plan on the council agenda of talks?	The council talks is not effected with the plan in a big way and not in a direct way.
Q5: has the shura ever suggested an MIP as a solution for specific problems?	I have not came across such a thing so far

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Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	They do not pass by us in a direct way but we look into them in the yearly reports. For example projects of the ministry of housing and sometimes the don't pass by us like the norah university and several stadiums. Some pass by us through reports some don't.
Q7: Is the council included in every MIP the country produces?	It does based on the yearly reports of ministries.
Q8: Does the council have the authority of rejecting MIPs developments?	No it does not have the authority it only give an induction of it being good or not.
Q9: When the council intervenes on MIPs are they from a technical or financial standpoint?	Financial more because it is clearer and technical less. The most goes into cost and benefit.
Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	It might be due to emergency projects or due to what they have is more than the content of the five year plan. Also the decision maker might have point of view which is deferent than the ministry of planning. For example the 14.2 billion budget for projects requested by khild alfaisal as he is an influential minister of education that can effect the decion maker the king. Also if there would be a economical crises the money would go the priority.

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### 10.3 Appendix C Thematic analysis

- Coded interviews for the Shura members

S1	S2	S3	S4	S5	S6(0)
Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: What is the relation between the shura council and the rest of the governmental institution?	Q1: Do you feel the shura has enough expertise to deal with every study requests they receive?
Mentoring and keeping up on them from a surveillance angle. There is no relation with other institutions from a consultancy angle. The cabinet in specific does not gain council in decision's. The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).	The shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority.	The shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country.	The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions. The shura also has the authority to request an audience with any minister of the for reviewing reasons regarding his ministry.	A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the shura does not track their recommendations.	The Shura Council is consisted and formed from of a diversity of expertise and jurisdictions, Education, Judiciary...etc. and discuss the information comprehensively and are open for debate.
Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Q2: Do you feel the shura has enough expertise to deal with every study requests that they receive?	Q2: Are there time concerns when reporting back/mentoring on topics that are sent to the council?

The shura members are appointed based on their expertise, as they are a selection of several experts in different fields. But we sometime hire consultants if we feel it is out of our reach. For instance we once hired several academics from King Saud University for consultancy.	Yes because members are appointed are able to deal with every study as much as possible. Because members are consisted of a diversity of tribal, religion, expertise and from every part of the country.	I feel there is a lack of expertise on political science that causes the political consultative inside the shure to partner with consultancy and academics on a lot of actuations.	The council includes every expertise needed. Public and private expertise. We have economist, religious scientist and lawyers and if we feel we are short on experts we have the authority to hire experts who can be of help.	Yes the council is a think tank that has 150 members in every field.	Most of the discussed issues are completed within the time limit but not all of them.
Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Q3: Are there time concerns when reporting back/mentoring on topics that are sent to the council?	Q3: Why do you believe that some MIPs are produced even though they are not included in the five year plan?
We take our time in every study, because we can request a postpone every 3 months.	No. We have a three months period for every study, which I feel, is fine.	Yes. 3 months to study issues on the consultative is sometimes not enough. And the time that is given for discussion on the shura between the members is also not enough in some cases.	Three months is enough to study each issue. I wish that this time period is also bounded with the cabinet and its Bauru of experts, as some issues can last for several years.	It is not of a big problem to get delayed than the three months limit. But it does in some cases and the reason we get sometimes late is because some ministries do not form precise reports but rather week ones. Ministries showcase their positives and if there is an issue they show it as demands and do not mention it as negatives.	Due to our economy that changes a lot sometimes we find ourselves with high funding, for example within the king Abdualh period mega projects were spread as the oil market was generating high earnings.
Q4: What is the impact of the five year plan on the council agenda of talks?	Q4: what is the impact of the five year plan on the council agenda of talks?	Q4: what is the impact of the five year plan on the council agenda of talks?	Q4: what is the impact of the five year plan on the council agenda of talks?	Q4: what is the impact of the five year plan on the council agenda of talks?	Q4: Has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?

Our main concern is the five year plan and governmental strategy.	I don't feel there is an importance on the five year plan. The five year plan on its current shape is very weak and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the five year plan, a time schedule and a criteria to measure the success of the work.	I don't feel there is a strong connection between it and the shura	Its is studied. But there is a problems with the five year plan. Problems of execution and budget. The five year plan is based on 13 section. Each section is send to the shura consultative for study.	The council talks is not effected with the plan in a big way and not in a direct way.	It does not intervene, intervention is only to evaluate government institution. It never intervenes in the detail. Its perspective is only on the high vision and not the details.
Q5: Has the shura ever suggested MIPs as solutions for the raised issues?	Q5: Has the shura ever suggested MIPs as solutions for the raised issues?	Q5: has the shura ever suggested an MIP as a solution for specific problems?	Q5: has the shura ever suggested an MIP as a solution for specific problems?	Q5: has the shura ever suggested an MIP as a solution for specific problems?	Q5. What is the process of the five year plan budget, do the interested ministry gets involved?
Yes. For example we felt the need to develop a new mekkah airport and several railways. We call it reasoning paper.	The shura is more of a factory of regulations and policies. We are more concerned with the big picture.	There is no direct connection with mega projects and the shura	The shura does not go into specifics and that is left for the cabinet. The shuras main role is mentoring/reviewing and developing regulations.	I have not came across such a thing so far	First goals are formulated and submitted to the Cabinet and if it gets approved, they are assigned to be lifted for study, goals later will configured into requirements and these are estimated along a five year cycle. The ministry of planning does not include the finance in formulating the budget for the five year plan. After doing the budget the finance, planning and the interested ministry set meeting to develop the final budget.

Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	Q6: has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	Q6: Has the majls ever intervened on MIPs on its approval process whether with a rejection or approval?	Q6. Why does the ministry does not form the budget according to the five year plan or other ministries needs?
No	The shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet.	This is a power that only the ministry of finance has. We do monitor governmental flow of work based on yearly reports but its only for consultative aspects.	Yes. On strategic projects which are having construction issues such as the industrial cites based on reports of ministry of commerce. The shura role on this stage it trying to identify the problems and suggesting solutions.	They do not pass by us in a direct way but we look into them in the yearly reports. For example projects of the ministry of housing and sometimes the don't pass by us like the norah university and several stadiums. Some pass by us through reports some don't.	The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterword's the ministry release the actual budgets cutting major projects based on their policy. When we address the issue with them and ask why the removal of some of the projects when it was approved by the council. They respond that it was the preliminary budget and that the actual budget developed by them was approved by the council.
Q7: Is the council included in every MIP the country produces?	Q7: Is the council included in every MIP the country produces?	Q7: Is the council included in every MIP the country produces?	Q7: Is the council included in every MIP the country produces?	Q7: Is the council included in every MIP the country produces?	

No	No. we receive information of projects based on ministries reports for every past year.	No, only the ministry of finance is included on every project. And at some point the ministry could produce a mega projects based on its own decision that is not part of its responsibility and then gives to another ministry such the princess noura university.	No that is not of the specialty but they may be presented to them through the yearly reports.	It does based on the yearly reports of ministries.	
Q8: Does the council have the authority of rejecting MIPs developments?	Q8: Does the council have the authority of rejecting MIPs developments?	Q8: Does the council have the authority of rejecting MIPs developments?	Q8: Does the council have the authority of rejecting MIPs developments?	Q8: Does the council have the authority of rejecting MIPs developments?	
No	No.	No	No	No it does not have the authority it only give an induction of it being good or not.	
Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?	Q9: When the council intervenes on MIPs are they from a technical or financial standpoint?	Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?	Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?	Q9: when the council intervenes on MIPs are they from a technical or financial standpoint?	
Technical always	They intervene on both technical and financial standpoint.	Both	It is technical unless they felt there are some signs of corruption.	Financial more because it is clearer and technical less. The most goes into cost and benefit.	
Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	Q10: Why do you believe that some MIPs are produced even though they are not included in the five year plan?	



Due to very pressing need of growth which has caused the government to produce projects in a very fast rhythm. For instance Aramco is appointed to handle projects outside its expertise such as stadium aljohra. This due the fact that Aramco is one of the most developed governmental institution that they us to escape bureaucracy when they have no time for it.	As I said earlier the five year plan is great on paper but very weak in its core and not able to cope with the needs of the country.	Due to an issue of regulations and the fact that the five year plan is not very detailed and measured on correct criteria.	The governments high ambition and the availability of funds. Thus causes the executive authority to pass the government.	It might be due to emergency projects or due to what they have is more than the content of the five year plan. Also the decision maker might have point of view which is deferent than the ministry of planning. For example the 14.2 billion budget for projects requested by khild alfaisal as he is an influential minister of education that can effect the decision maker the king. Also if there would be a economical crises the money would go the priority.	
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- Coded interviews for council of ministers members

C1	C2	C3 (B1)	C4 (B2)	C5
Q1: Being a member of the council and minister of transport do you require a form of approval to discuss a proposed project, if so does the approval comes from the ministry of finance or the council other arms such as the bureau of experts?	Q1: Being a member of the council and minister of transport do you require a form of approval to discuss a proposed project, if so does the approval comes from the ministry of finance or the council other arms such as the bureau of experts?	Q1. What is the Bureau relation with other governmental institutions?	Q1: What would you recommend as an initiative for the five year plan process?	Q1. What would you recommend on improving the five year plan?

<p>Every government body puts their plan for 5 years and is sent to the ministry of planning, then meeting are done to discuss and review these plan between the ministry of planning finance and the intended ministry. These meetings form the plan. The problem surfaces from the nature of the countries economy. Its economy is formed around the oil economy and the five year plan is impacted with changes based on the changes of oil market. If the market is low the funding becomes low. That the problem. Thus flexibility is needed and sometimes goals are abended. Another issues is that sometimes a government body is not capable or strong enough to deliver its goals. For sometimes the goal is bigger than the institution itself. That's why the ministry of finance is in constant interference with mid range plans.</p>	<p>The council has been split into two, one for the politics and security and the second for development and economics. Thus every ministry now discusses its goals and strategy in the council of development and economics and after it discuss them its is drown into a finial form. Ministries work as partners in providing a clear strategy for every ministry and conducting workshops to connect each ministry with its goals and rise spending efficiency. The ministry of planning merges every ministry in workshops and set priorities while also identifying the first steps of the plan</p>	<p>A technical governmental body that receives administrative transactions to study them from a legal standpoint.</p>	<p>it would be better if the ministry of planning would include the privet sector and be a partner in delivering the five year plan.</p>	<p>The process must always be in a permanent consult in every step, and detailed on macro level, because they translate the dreams of the country and it must be realistic and able to execute. the plan is the other side of the budget and must be in line with the it. Follow-up is very important to know the errors and pitfalls.</p>
<p>Q2: What are the stages of any proposed project that the ministry of finance must be included in?</p>	<p>Q2: does the ministry rely on the five year plan on lining the projects or on its own visions or the ministry of finance visions? Or is it a shard vision?</p>	<p>Q2. Do you feel the Bureau is capable of dealing with every request it receives from an expertise perspective?</p>	<p>Q2: What is the role of the council of development and economics on the five year plan?</p>	<p>Q2. Does the council of economics and development and the bureau of experts have the approval authority on MIPs?</p>
<p>In the start, a study is conducted and then raised to the council which later forms comities and the ministry of finance has to be in the comity.</p>	<p>Any mega projects are lunched from a cooperated vision from the council of development before its raised to the council of ministries. Then conducting workshops, and now any mega project must be under the "national transformation plan".</p>	<p>The bureau consists of a team of legal expertise that cooperates and when needed uses the expertise of other ministries once the study concern them</p>	<p>the council of development and economics studies the five year plan and only provide general visions and goals for the government.</p>	<p>They are all linked to the Council of ministers and under it authority, they do not have the authority to approve but it generate visions, and the Panel of Experts is considered a Think Tank specific unique in the five-year</p>

				plan and it takes time
Q3: does the ministry rely on the five year plan on lining the projects or on its own visions or the ministry of finance visions? Or is it a shard vision?	Q3: when the five year plan document is finished and a meeting is done between your ministry and the finance and planning, how do you come to a one conclusion, are their a matter of stages to reach that point?	Q3. Are requests received for study have a specified time limit, is there a standard time limit for a study or it varies from one study to another?	Q3: To overcome the strong grip of the ministry of finance what would you recommend?	Q3. What is the regular process of the five year plan?
It flows from the ministry itself thus from the ministry to the council of ministries.	For now the tenth plan is being revised through a new structure of decision process to revise the current conditions of the context.	It depends from one study to another unless it was received with a request of timed response	government budgetary should be transferred from the ministry of finance to the ministry of planning.	Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet
Q4: Mega projects that are not born from the five year plan are they negotiated with the ministry of planning or the council of ministers?	Q4: Who are the government bodies that the ministry cooperates with when developing a project	Q4. Is there a relation between the bureau and the five year plan, and if so at what stage does it start?	Q4: What would you recommend as improvement's for the decision process of MIPs?	
No, doesn't require, and sometimes studies are done with private consultancy, the ministry of planning and economics do sometime intervene with other ministers that are touched by the project	Through the council of development and economics in meeting that are done once or twice a week and everybody is a partner in the development.	No, there is no relation because the bureau is only concerned with legal issues	adding a council within the council of development and economics that prepares the five year plan and coordinate between all stakeholders.	

Q5: what do you consider as the most negative issues on decision making for the ministry when approving a project?	Q5: When there is a disagreement between the ministry of finance and your ministry about a mega project, do you still have the right to discuss it on the council of ministers ?	Q5. What is the impact of the five year plan on governmental MIPs and do they require an approval from the bureau?		
The bureaucracy and the long period to study request effects the process let alone the business of every ministry.	Now the ministry is part of a new decision process, being a member of a group work within the council of development. Giving priorities based on current economical conditions.	No, in general the flow of work and projects follows the yearly budgets and the five year plan is only guiding instructions.		
Q6. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?	Q6: Mega projects that are not born from the five year plan are they negotiated with the ministry of planning or the council of ministers?			
The problem is that wealth is oscillatory and unstable and effects the plans progress	No project will be done unless with a careful supervision of the current satiation from the council of development and the council of ministries.			
Q7. Is there conflicting policies between the Ministry of Planning (the producer of the countries policies) and the Ministry of Finance	Q7: From your own perspective what would you suggest as improvements to the five year plan?			

(with their own agenda and				
Before yes but now with council of development the process is faster but still there is a need of developing in-house expertise	That every ministry puts a strategy into achieving their goals with great detail.			

- Coded interviews for Other high government officials

01	02	03	04
Q1. Does the ministry of planning include your insight and council when formulating the five year plan?	Q1.What is the relation between the council of economics and development and the bureau of experts on aspects such as MIPs?	Q1. Do the commission Projects flow in the same direction as the Five year plan intended?	Q1: What is the millstone for forming the five year plan?
View points of the government bodies are received but little communications is done after that	The relation is close when a project has a legal dimension that needs to be reviewed	Projects of the commission are in harmony with the five year plan vision and goals.	You can check the updated manual done for the tenth plan for specifics.
Q2. In a case of dispute while developing a five year plan how is that resolved and who has the final decision?	Q2. What is the impacts of the council on the ministry of finance work?	Q2. What would you recommend for the five year plan?	Q2: When does the five year plan starts ?

I haven't seen an issue of dispute before, but the problem with five year plan is that it can not force its goals on the ministry of finance, the ministry of planning is like an old wise man that gives council but are not law banding, the problem is that its goals are wishes and not realities.	The council distinguish the highest priority projects from the least to the ministry of finance so the ministry can provide support to it.	It should be taken into perspective the deep concerns of the commission as it works in a very dynamic context that shifts and changes a lot. That's way certain projects are out of the five year plan boundaries, due to big jumps in the telecommunication sector.	In the last year of the previous plan and takes about a year to finish. Every year the ministry conducts a follow up report.
Q3. Projects proposed on Mega level (interviewer explains) are they always based on the five year plan.	Q3. What is the main goal of the council?	Q3. What is current approval process for your Projects?	Q3: Do you find difficulties while gathering information from other government institutions?
No, there are from our own vision, and with the support of the governor. And its time for the non centralization for local governments. For example the ministry of municipality and rural affairs is built on non centralization vision.	The council aims to resolve the issue of coordination between all government ministers from the beginning of every project or program.	Now any project that is proposed and beyond SR100 million is sent to the council of ministries	Always, database knowledge is difficult to access, but that was in the past. Nowadays that have changed to the better.
Q4. When proposing a project how many government institutions must be negotiated with or proposed to?		Q4. What is the role of ministry of finance on the flow of the five year plan budgets?	Q4: who are the stakeholders that participate in planning the five year plan?
Firstly with the governor and then the ministry of finance and sometimes we rely on the media as a tool of pressure on the ministry of finance		from my past experience in the university (assistant to the head of King Saud university) as I was representing the university we had meetings with ministry of planning and ministry of finance, to assure that our projects were within the boundaries of the five year plan. The issue project were erased from the plan by the representative of the ministry of finance based on their spending policies with no intervention by the representative of the ministry of planning.	All government institutions and some private consultancy companies.

Q5. Who has the final say in the approval of your project or who are the final authorities that control its approval?			Q5: when does stakeholders participate?
The ministry of finance			Every year of the five year plan on the follow up from year one and the preparation stage for the next plan in the final year.
Q6. How can the current decision making framework for Saudi Arabia be improved to foster long term objectives of MIPs from your perspective?			Q6: what would you propose as adjustments for the five year plan?
There should be a focus and concentration on the strategic relationship between all projects and their placement. There should be a council that provides communication between government bodies, but the problem of bureaucracy forces less communication.			Cancel development plan such as the five year plan and introduce reform programs. They must develop precise indicators to measure performance. A big issue that needs to be resolved is the rearranging of the organizational relationships between the Council of Ministers and the Economic and development and the Shura Council, not to mention the presence of a Ministry of Planning.
Q7. Who benefits/losses from this current institutional framework?			Q7: while forming the five year plan does it get influenced by a strong ministry such as the finance ministry or based on your vision or a

			wide participation of all stakeholders?
The country and the government official who wants to work and provide progress. There is also a benefit on the system and that the king can overcome the bureaucracy and lessen sometimes its effect.			The finance does not intervene in the vision and formation of the plan but rather on the execution of the plan.
Q8. Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?			Q8: Who wins losses from the current decision process?
The government I believe is not of great wealth.			The citizen and the reserve fund
Q9. What would you recommend on for the five year plan improvement?			Q9: Does the perception of Saudi wealth (short-term and long-term) affect its decision-making process regarding ordinary (shorter-term) and mega (longer-term) infrastructure projects?
Re inspecting the relation between the finance, planning and the involved ministry while planning programs and projects and providing detailed budgets with clear priorities.			the return on investment of the projects in terms of profitability nationalism or national benefits have been absent. generally the kingdom is not wealthy .
			Q10: Is there conflicting policies between the Ministry of Planning (the producer of the countries policies) and the Ministry of Finance (with their own agenda and policy) on the decision process?



			<p>There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities.</p>
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- Thematic analysis:

	Stakeholder involvement	Final decision maker	Issues and recommendations for the five-year plan	Initiation of MIPs outside the five year plan
S1	The shura gives council only in governmental strategies based on regulation (15). Its second objective is to study what is sent to the shura for council and to add their suggestions. If rejected they relay on regulation (17).			Due to very pressing need of growth which has caused the government to produce projects in a very fast rhythm.
S2	shura is mainly a partner to the cabinet that is used for consultation but its decisions and consultation is not authority. The shura is more of a factory of regulations and policies. The shuras interventions and decisions are not bounded by law. They only rise an awareness to the cabinet. we receive information of projects based on ministries reports for every past year.		I don't feel there is an importance on the five year plan. The five year plan on its current shape is very weak and unable to produce any significant impact. If it is to work, we need a detailed execution plan alongside the five year plan, a time schedule and a criteria to measure the success of the work. the five year plan is great on paper but very weak in its core and not able to cope with the needs of the country.	
S3	shura is a collection of experts that consult the cabinet based on yearly reports of the ministries or raised issues that concern the country. There is no direct connection with mega projects and the shura. I don't feel there is a strong connection between it and the shura (to 5 plan)	This is a power that only the ministry of finance has. ( intervened on MIPs on its approval process whether with a rejection or approval). only the ministry of finance is included on every project. And at some point the ministry could produce a mega projects based on its own decision that is not part of its responsibility and then gives to another ministry such the princess noura university.	the five year plan is not very detailed and measured on correct criteria.	Due to an issue of regulations and the fact that the five year plan is not very detailed and measured on correct criteria. (mips produced out of the plan)

S4	<p>The council is concerned with regulations and laws. When the council sends something to the cabinet its automatically transferred to Bauru of experts regarding adjustments to laws/regulations or its review of governmental institutions. The shuras main role is mentoring/reviewing and developing regulations. issues such as the industrial cites based on reports of ministry of commerce. The shura role on this stage it trying to identify the problems and suggesting solutions. No that is not of the specialty but they may be presented to them through the yearly reports (in regard to MIP planning and appraisal)</p>	<p>the executive authority to pass the government.</p>	<p>there is a problems with the five year plan. Problems of execution and budget.</p>	<p>The governments high ambition and the availability of funds. (MIPs outside the 5 year plan)</p>
S5	<p>A surveillance role for governmental activities and altering or looking into rules and regulations and looking into strategies like the tenth year plan to study the currant concerns. But the problem is some of our consultancies are put to sleep, because the shura does not track their recommendations. The council talks is not effected with the plan (five year plan) in a big way and not in a direct way. They do not pass by us (MIPs) in a direct way but we look into them in the yearly reports. For example projects of the ministry of housing and sometimes they don't pass by us like the norah university and several stadiums. Some pass by us through reports some don't.</p>	<p>the decision maker might have point of view which is deferent than the ministry of planning. For example the 14.2 billion budget for projects requested by khild alfaisal as he is an influential minister of education that can effect the decision maker the king.</p>		<p>It might be due to emergency projects or due to what they have is more than the content of the five year plan. (mips produced out of the plan)</p>
S6 (0)	<p>Viewpoints and details by government institutions takes place within the preliminary budget</p>	<p>The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterword's the ministry release the actual budgets cutting major projects based on their policy</p>	<p>The ministry of planning does not include the finance in formulating the budget for the five year plan. After doing the budget the finance, planning and the interested ministry set meeting to develop the finial budget. The Ministry of Finance prepares a preliminary budget before they approve the budget. the guidelines are based on income and spending, and divided into sectors and places a cap. Viewpoints and details by government institutions takes place within the preliminary budget, afterword's the ministry release the actual budgets cutting major projects based on their policy.</p>	<p>we find ourselves with high funding, for example within the king Abdualh period mega projects were spread as the oil market was generating high earnings. (mips produced out of the plan)</p>

C1	<p>In the start, a study is conducted and then raised to the council which later forms comities and the ministry of finance has to be in the comity. Every government body puts their plan for 5 years and is sent to the ministry of planning, then meeting are done to discuss and review these plan between the ministry of planning finance and the intended ministry. These meetings form the plan.</p>		<p>The problem surfaces from the nature of the countries economy. Its economy is formed around the oil economy and the five year plan is impacted with changes based on the changes of oil market. If the market is low the funding becomes low. That the problem. Thus flexibility is needed and sometimes goals are abended. Another issues is that sometimes a government body is not capable or strong enough to deliver its goals. For sometimes the goal is bigger than the institution itself. That's why the ministry of finance is in constant interference with mid range plans. The problem is that wealth is oscillatory and unstable and effects the plans progress</p>	<p>It flows from the ministry itself thus from the ministry to the council of ministries. No, doesn't require (5 plan), and sometimes studies are done with private consultancy, the ministry of planning and economics do sometime intervene with other ministers that are touched by the project</p>
C2	<p>The council has been split into two, one for the politics and security and the second for development and economics. Thus every ministry now discusses its goals and strategy in the council of development and economics and after it discuss them its is drown into a finial form.</p> <p>The ministry of planning merges every ministry in workshops and set priorities while also identifying the first steps of the plan.</p> <p>Through the council of development and economics (when developing a project).</p> <p>the ministry is part of a new decision process, being a member of a group work within the council of development.</p> <p>Giving priorities based on current economic conditions.</p> <p>Any mega projects are lunched from a cooperated vision from the council of development before its raised to the council of ministries. Then conducting workshops, and now any mega project must be under the "national transformation plan".</p>	<p>No project will be done unless with a carful supervision of the current satiation from the council of development and the council of ministries.</p>	<p>That every ministry puts a strategy into achieving their goals with great detail.</p>	

C3 (B1)	A technical governmental body that receives administrative transactions to study them from a legal standpoint. The bureau consists of a team of legal expertise that cooperates and when needed uses the expertise of other ministries once the study concern them . No, there is no relation because the bureau is only concerned with legal issues (to MIPs)			No, in general the flow of work and projects follows the yearly budgets and the five year plan is only guiding instructions.
C4 (B2)	the council of development and economics studies the five year plan and only provide general visions and goals for the government. Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet (for 5 year plan)		government budgetary should be transferred from the ministry of finance to the ministry of planning. it would be better if the ministry of planning would include the privet sector and be a partner in delivering the five year plan. adding a council within the council of development and economics that prepares the five year plan and coordinate between all stakeholders.	
C5	They are all linked to the Council of ministers and under it authority, they do not have the authority to approve but it generate visions, and the Panel of Experts is considered a Think Tank specific unique in the five-year plan and it takes time		The process must always be in a permanent consult in every step, and detailed on macro level, because they translate the dreams of the country and it must be realistic and able to execute. the plan is the other side of the budget and must be in line with the it. Follow-up is very important to know the errors and pitfalls. Sent to the Committee of the Council of Ministers, and then goes to the Shura Council, and then returning to the bureau of experts, finally to the cabinet	

O1	<p>its time for the non centralization for local governments. For example the ministry of municipality and rural affairs is built on non centralization vision. Firstly with the governor and then the ministry of finance and sometimes we rely on the media as a tool of pressure on the ministry of finance</p>	The ministry of finance	<p>There should be a focus and concentration on the strategic relationship between all projects and their placement. There should be a council that provides communication Between government bodies, but the problem of bureaucracy forces less communication. the problem with five year plan is that it can not force its goals on the ministry of finance, the ministry of planning is like an old wise man that gives council but are not law banding, the problem is that its goals are wishes and not realities. Re inspecting the relation between the finance, planning and the involved ministry while planning programs and projects and providing detailed budgets with clear priorities. View points of the government bodies are received but little communications is done after that</p>	<p>No, there are from our own vision, and with the support of the governor. sometimes we rely on the media as a tool of pressure on the ministry of finance</p>
O2	<p>The relation is close when a project has a legal dimension that needs to be reviewed (between the council of economics and the bureau of experts). The council distinguish the highest priority projects from the least to the ministry of finance so the ministry can provide support to it. The council aims to resolve the issue of coordination between all government ministers from the beginning of every project or program.</p>			
O3		<p>from my past experience in the university (assistant to the head of King Saud university) as I was representing the university we had meetings with ministry of planning and ministry of finance, to assure that our projects were within the boundaries of the five year plan. The issue project were erased from the plan by the representative of the ministry of finance based on their spending policies with no intervention by the representative of the ministry of planning.</p>	<p>Projects of the commission are in harmony with the five year plan vision and goals. It should be taken into perspective the deep concerns of the commission as it works in a very dynamic context that shifts and changes a lot. That's way certain projects are out of the five year plan boundaries, due to big jumps in the telecommunication sector.</p>	

O4	<p>A big issue that needs to be resolved is the rearranging of the organizational relationships between the Council of Ministers and the Economic and development and the Shura Council, not to mention the presence of a Ministry of Planning. There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities.</p>	<p>The finance does not intervene in the vision and formation of the plan but rather on the execution of the plan. There are fiscal policy and monetary policy all led by the financial ministry. The economic policy is led by the vision and the vision is shared but the difference is in priorities.</p>	<p>They must develop precise inductors to measure performance. the return on investment of the projects in terms of profitability nationalism or national benefits have been absent. generally the kingdom is not wealthy .</p>	
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## **UNDERSTANDING THE DRIVERS AND NEEDS FOR MEGA INFRASTRUCTURE PROJECT DEVELOPMENT IN SAUDI ARABIA**

Mega infrastructure projects (MIP) are continuously complicated along their lifespan. Whether in their planning or execution stages, they are highly diverse from one another and require different approaches for their planning and decision-making. The Saudi infrastructure sector is booming and many projects can be classified as Megaprojects. That is, they come with a minimum life span of fifty years and a starting price that exceeds GBP 1 Billion. The current investment for infrastructure in the Kingdom of Saudi Arabia is about GBP 100 Billion per annum. In order to provide contextual knowledge for scholars decision makers, this paper explains the goals, agendas and forces driving MIP development in the specific context of the Kingdom of Saudi Arabia. In order to understand more and rank these drivers, Multi Criteria Analysis will be used in combination with data gathered from two sources: firstly, knowledge (gathered from questionnaire data) from a pool of the Saudi Council of Ministers and the Bureau of Experts – the ‘Shura Council’ or the Consultative Assembly of Saudi Arabia. Secondly a historical analysis of Saudi’s five-year plan goals and objectives from 1970-2019 is used in order to understand and track the development priorities of the nation. Results suggest that as well as societal and economic drivers, the religious values are significantly important, expressed by the need to safeguard and uphold Islamic values.

Keywords: Decision Analysis, Economic Development, Mega Infrastructure Projects, Project Management, Saudi Arabia.

### **INTRODUCTION**

Mega infrastructure projects (MIPs) are significant developments that exceed the relative norm of infrastructure projects. Dimitriou (2009), in a consideration of



privately financed mega transport projects, explains that within a description of an infrastructure project, the word “mega” refers to a significant increase in its size, budget, lifespan, complexity and uncertainty. MIPs are known for their high complexity, risks and uncertainty. They exceed a fifty-year lifespan and a billion pound budget (Bruzelius et al., 2002). Graham and Marvin (2001) argue that progress and development cannot unfold without the presence of MIPs. Flyvbjerg et al (2003) refers to MIPs as political animals that feed on a country’s resource. Their financial and social stakes are so large that they can endanger the survival of corporations or threaten the economic stability of the countries involved (Eweje et al, 2012).

MIPs make great impacts and clearly need to be planned and designed on a rational basis. They are constantly developed for political, economical, social or environmental reasons. Despite their growing popularity, MIPs often fail to meet cost estimations, project objectives and time schedules (Marrewijk et al., 2008). Cost escalations within MIPs happen in almost nine out of ten projects with an average cost increase of 28 percent on average (Giezen, 2012). Flyvbjerg (2003) found that cost overruns of 50-100% in fixed prices are common for MIPs. Budget overruns and lower effectiveness has led researchers (e.g. Altshuler and Luberoff, 2004) to question the rationale and the sustainability of MIPs.

Allport (2011) and Williams and Samset (2010) have argued that a significant part of an MIP’s success is achieving effectiveness through the delivery of its strategic intention which was based on policies that give birth to such projects. MIP success, therefore, is not merely based upon time, budget and quality, which are usually referred to as “the iron triangle”, but rather success is based upon the achieved public policy.

Contextual information is a key factor in successful decision-making. Being aware of the context in which a project is developed is a constrictive way to address the risks, uncertainties and complexities that characterize MIPs (Dimitriou et al, 2012). Zhi (1995) notes that each project has its own unique risk and organisational context that influence the strategic approach on the intended MIP. Contextual influences can even affect the rationale behind the project and what constitutes as success (Dimitriou et al., 2013).

This paper aims to better understand the goals and visions driving MIP development in the context of Saudi Arabia. For an MIP strategy to be effective, it must have a vision and address both ‘manifestation’ and ‘root problems’ and the need of strategies to reflect these dynamics and influenced by them as driving forces. (Dimitriou et al., 2013). Key project stakeholders need to identify and analyse the context surrounding MIP decision-making (Dimitriou et al., 2012). In a study of the power of context on Asia’s MIP scene, Dimitriou (2006) explains that effective problem solving has appreciation for the context surrounding the problems.

Knowing and understanding the context's agenda and leading goals will therefore help develop further research the Saudi context, a pre-step necessary before any decision process is formed. The paper aims to dwell into the Saudi context in regard to MIPs. It will consider the Saudi Five-Year plans which include the goals, projects and programmes that needs to be developed. If it is considered, as Eweje et al. (2012) adds, that MIPs are programmes that integrate strategically-aligned projects into one very large project then from this perspective, we can view the Five-Year Plan as an MIP. We can argue on the current success of Saudi Five-Year Plan in relation to its policy effectiveness. Analysis of the Five-Year Plan offers the vision and priority goals of the Saudi context and who can that have an effect on future research of MIP planning and decision making within the Saudi context.

## **CONTEXTUAL SETTING: SAUDI ARABIA**

This research outlined in this paper ventures into the context of Saudi Arabia, one of the wealthiest nations in the world. With 264 billion barrels the Kingdom has the world's second largest oil reserve after Venezuela, a proportion of approximately 16%. It also has the largest production capacity in the world and pumps just under 12 million barrels per day (EIA, 2014). The country is highly dependent on this unique natural resource as the oil industry produces 75% of state revenues. Rahman and Khondaker (2012) note that oil export revenues account for around 90% of total Saudi export earnings and 75% of the state's overall revenue.

Saudi Arabia hasn't always been a wealthy nation. According to the Ministry of Planning (2015), the nation was economically poor before 1948, when 90 percent of the population were either nomads or farmers. Between 1948 and 1952, the country saw a change in what it considers the early innovation period and a turning point for the country. The country prepared its first formal budget in 1948. Revenues started to build, basic infrastructures developed, and modern port facilities were completed in Jeddah. In 1951, Saudi Arabia conducted its first major MIP, the Dammam-Riyadh railway, a 52 million USD project, even though it was considered a costly investment (at the time, oil revenue was about 50 million dollars per year).

Early development occurred during the period between 1952 and 1970, which helped the Saudi GDP grow at an annual rate of 10.6%. By 1970, rapidly developing infrastructures caused an emergence of substantial metropolitan centres in Riyadh, Jeddah, Dammam, Mecca, Medina, and Hofuf (Ministry of Planning, 2015).

Until 1970, institutional expansion, mainly focussing on health, education, and physical infrastructure, followed the growth of the oil revenues (Ministry of Planning, 2015). After 1970, King Faisal initiated a series of Five-Year Plans. Sicherman (2011) notes that these plans were primarily focused and intended for Saudi Arabia's economy; the objective was to provide the government with the

tools to become a modern technological society while maintaining the religious morals that underpinned its legitimacy. By 2015, however, as Fattouh and Sen (2015) explain, the Kingdom faces key issues, in particular dependency on depleting oil reserves in a destabilised geographic location.

## **METHODS**

The paper uses two sets of data to understand the goals and visions driving Saudi's MIP development. The first set includes 28 questionnaires completed by members of the Regulative and Executive Authority (of the 183 total members, 33 sit on the Council of Ministers and 150 on the Shura Council). The questionnaires were requested respondents to score the ninth Five-Year Plan goals from 1 to 10. 23 of the respondents were from pre-selected Shura Members, and the remaining 5 from pre-selected Council of Ministers. The pre-selecting method offered a way to approach the difficulty of access to participants who serve on the councils. The second set of data are the Five-Year Plans "goals" in their various iterations since their beginning in 1970 until the ninth plan in 2014.

Table 1 shows the vehicle in which data are considered. The analysis will adopt a Multi-Criteria Analysis framework, an example of which is shown in Table 2. It is to be noted that MCA is based on uncovering the potential of success or not. It is a decision-making tool to aid decision makers. This is not the primary concern of the research; rather it is focused on uncovering development priorities. Thus the "Impact of Assessment" score in Table 2 is replaced by "Historical Occurrence" as illustrated in Table 1. Historical occurrence is the frequency of repetition of a goal along the Five-Year Plans studied.

The framework will conclude with a ranking of the Saudi leading goals that are taken from the Ninth Development Plan (2009-2014). Those that are ranked highest will be measured for success through collected data and further literature. The results will facilitate a discussion on the contextual aspects of the Kingdom and provide contextual depth for the Kingdom of Saudi Arabia.

## **ANALYSIS AND RESULTS**

As shown in Table 1, the framework consists of five columns: the ninth Five-Year Plan goals; the average weighting of each goal as measured by the questionnaire; the historical occurrence of each goal; the score of each goal, produced by multiplying the average weight with the historical occurrence; and finally, each goals ranking.

*Table 1: An example of the study framework*

Five-Year Plan goals	Weight (1-10)	Historical occurrence (0-8)	Score	Ranking
Goal I	10	5	50	B
Goal II	10	2	20	D
Goal III	9	4	36	B

*Table 2: A typical MCA framework*

Goals	Weight (1-10)	Impact of Assessment	Score	Ranking
Goal I	10	5	50	B
Goal II	10	2	20	D
Goal III	9	4	36	B

The ranking system is shown in Table 3. The aim of the ranking is to uncover priorities of the context. While all goals and objectives are interesting, this paper will focus on only high priority goals, ranked A, B or C. The historical occurrence will help correct any errors with the questionnaire. It will solidify the results of the questionnaires by including their impact on the final scoring. Because the Five-Year Plans were initiated in 1970, they provide an opportunity to track

*Table 3: Ranking system*

Score	Ranking
55 and above	A
35-54	B
25-34	C
15-24	D
14 and below	E

government goals for a period of more than forty years, which allows the researcher to trace each goal back to the first Five-Year Plan. The more they dwell further back, the more they gain priority and offer the opportunity to uncover root issues. Nevertheless, contexts exist in a cycle that changes depending on multiple inputs and outputs. Thus, a historical tracking of the goals is only a start.

Questionnaires were administered between January and March 2016 to address current concerns. Combining current weighting of goals with historical occurrence will produce a more accurate representation of contextual priorities than either of these factors taken individually. These two entities complement each other and offer a more accurate representation of reality than analysing either independently.

This paper does not select the Tenth Plan (2015-2019) as a focus of the research for two reasons. Firstly, the Tenth Plan has been put on hold. The Ministry of Planning did not release the final document and is subject to change. Secondly, if chosen for this study, the Tenth Five-Year Plan would make it impossible to measure priority goals and achievements until post 2019, which would set back this research because the study aims not only to uncover the goals and drivers of MIP development in Saudi Arabia, but also to better understand the Five-Year Plan current condition because the Five-Year Plan is a powerful vehicle that carries the initiation of multiple MIPs. Table 4 shows the results of the questionnaire analysis.

## DISCUSSION: HIGH PRIORITY GOALS

### Rank A

Safeguarding Islamic values and confirming Sharia play key roles in the political agenda and are highly visible throughout the Five-Year Plans. The Saudi people are generally conservative, and their religious figures heavily influence public opinion. As Albassam observes (2015), for the last half-century, the Kingdom has been held together informally through an alliance between the government and the traditional religious leaders.

*Table 4: Results of the MCA Analysis on Questionnaire Returns*

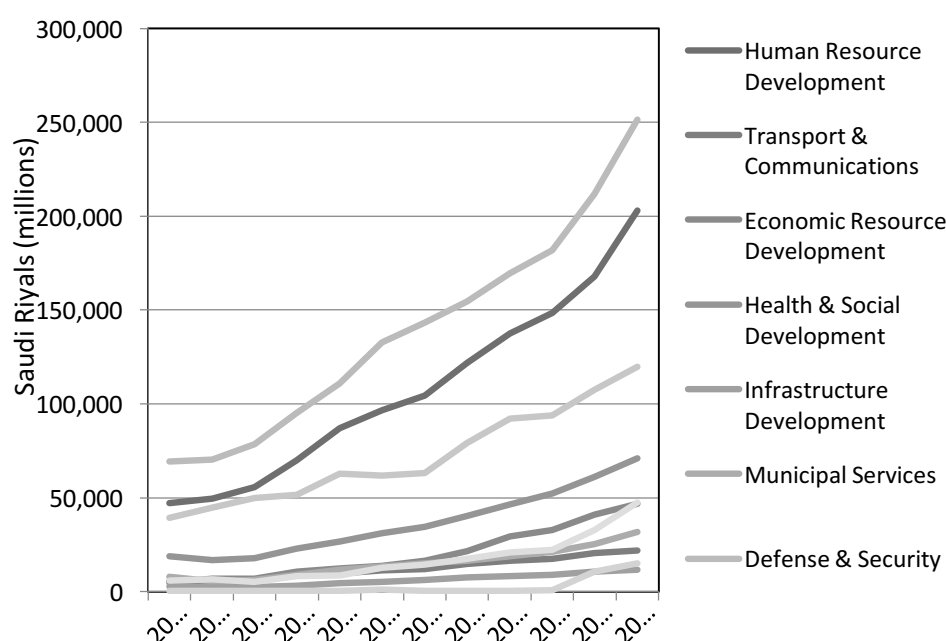
	Goals	Weight (1-10)	Historical occurrence (0-8)	Score	Ranking
1	To safeguard Islamic teachings and values, enhance national unity and security, guarantee human rights, maintain social stability, and consolidate the Arab and Islamic identity of the Kingdom.	9.4	8	75.0	A
2	To continue to develop the holy places, and improve the services provided to Hajj and Umrah performers to ensure performance of religious rites easily and conveniently.	5.9	1	5.9	E
3	To achieve sustainable economic and social development by accelerating the rate of economic growth and social welfare.	7.1	1	7.1	E
4	To achieve balanced development among regions of the Kingdom	7.3	4	29.2	C
5	To enhance human development, expand the range of options open to individuals to enable them to acquire and use knowledge, skills and expertise, and provide appropriate healthcare services.	6.6	7	46.2	B
6	To raise the standard of living and improve the quality of life of all citizens.	5	4	20	D
7	To diversify the economic base horizontally and vertically, expand the absorptive and productive capacities of the national economy and enhance its competitiveness, and maximize the return on competitive advantages.	7.1	8	56.8	A
8	To move towards a knowledge-based economy and consolidate the basis of an information society.	5.2	1	5.2	E
9	To enhance the role of the private sector in socioeconomic and environmental development and expand domains of private investments (domestic and foreign) and public-private partnerships.	4.8	4	19.2	D
10	To develop, conserve and ensure rational utilization of natural resources, particularly water, protect the environment and develop environmental systems within the context of sustainable development.	4.7	1	4.7	E
11	To continue socioeconomic and institutional reform, develop regulations aimed at raising efficiency and improving performance, work towards entrenching	6.3	0	0	E

	transparency and accountability, and support civil-society institutions in advancing their developmental activities.				
12	To strengthen economic integration with Gulf Cooperation Council and Arab states and develop relations with Islamic and friendly countries.	3.6	5	18	D
13	To develop the sector of Small and Medium Enterprises to increase its contribution to GDP, and create frameworks for nurturing and organizing it.	5	0	0	E

Because the Kingdom of Saudi Arabia is located in a tense region under constant conflict, defence and internal security are also important themes. Saudi Arabia borders two countries at war: Iraq in the north and Yemen in the south. While the commentary is now nearly twenty-five years old, the words of Tempest (1992) are still relevant to the security dilemma in the Middle East:

“As the superpowers disarm and dump increasingly sophisticated weapons and the rest of the world’s arms manufacturers, stripped of traditional markets at home, now queue to be allowed to pour their product into the Middle East, the trickle is turning into a flood. Sooner or later, one country or another which sees the narrow comparative advantage will want to use the weapons”

Thus, a significant percentage of the budget goes to defence capabilities. Figure 1, which shows each sector of the Saudi government’s budget from 2002-13, illustrates that the majority of the budget goes to defence and security in answer to its goal of upholding security that comes with a huge cost, which clearly reflects the fragile state of the Middle East.



*Figure 1: Saudi Arabia governmental budgets (2002-2013) (Source: Saudi Ministry of Finance, 2015)*

Although it should have been delivered through the aid of economical MIPs, the kingdom has shown no progress reducing dependence on oil, diversifying the economy or developing a balanced growth.

Using iterations of the Five Years Plans since 1970, Albassam (2015) investigated whether the following objectives have advanced or not: oil as a percentage of GDP, private sector as a percentage of GDP, oil as a percentage of the country's exports, and oil revenues as a percentage of total government revenues—over nine Development Plans (1970–2013). He concludes that oil still dominates almost all the variables studied and this objective is a long way from being achieved.

Albassam (2015) further argues that that objective of diversifying is not functioning for several reasons: (1) the absence of a clear plan that details the process of diversifying, (2) the aided sector for economy diversification is mainly dependent on oil (petrochemical industries), (3) the private sector depends on government spending and projects, and (4) the lack of a clear and specific plan on supporting non-oil sectors (e.g., agriculture, service). He raises the possibility of a link between resource curse theory and Saudi Arabia:

*“Conversely, many countries that draw a high percentage of their national income from a natural resource fall into what is known as the “resource curse,” where the country relies almost exclusively on that resource and does not make sufficient effort to diversify its income resources, which has a negative influence on its economic development”*

Albassam further adds that the private sector's dependence on government spending negatively affects the role that the private sector should play in diversifying the economy. Thus, economic diversification efforts by the Saudi government have shown little success in meeting the development plans' objectives. As noted by Farzin (1993) in considering the United Arab Emirates, rich oil countries rely heavily on oil, because it has become a comfortable source of income. That takes a toll on any economic diversification objective. Any fluctuation on the petroleum market – and of course this happens regularly – will jeopardize domestic investments by disrupting the revenue stream needed to finance them.

## **Rank B**

It has been noted since the first Development Plan that a major issue is the demand for human resources; thus, there has been a high level of non-Saudi labour that the Saudi government has been trying to reduce. It is perhaps unsurprising therefore that developing human resource was ranked B and is considered very important to the Saudi government and this is expressed by a policy of reducing the difference between Saudi and non-Saudi employees. Unfortunately, while every plan aims to reduce that gap, data show that in 2006 non Saudi employees represented 54% of the whole, while in 2015, this

proportion rose to 56% (Central department of statistics and information, 2016). This further showcases the lack of effectiveness the series the series of Five-Year Plans has had on accomplishing stated goals and highlights the need for further development.

### **Rank C**

Balancing development in the Kingdom ranked (C). Albassam (2015) links this objective to diversifying the economy:

*“Balanced development between urban and rural areas is recognized as one benefit of economic diversification. As many studies have shown, in less diversified economies, development and job creation tend to be concentrated in urban areas or near oil fields or mines and mineral processing plants”*

In analyzing the determinants of the Arab Awakening, Costello et al, (2015) invoke once again the ideas of resource or “oil curse” and argue that economic dependence on oil and natural gas production creates unemployment and major social disparities and inequalities, and these aspects might explain the country’s unbalanced growth.

The issues of balanced growth is complex in the Saudi context. The economical engines in Saudi Arabia are split in three provinces with no mega transport infrastructure linking them to surrounding areas. The current engines are in the east, west, and center. That growth in the center followed Riyadh the capital. Since the oil fields are in the Eastern Provenance, this region houses the oil industry. The Western province is a very sensitive and important part of the country; it includes Mecca and Madinah (Medina), the holiest cities to every Muslim. Growth in the north and south is not consistent with the rate of growth in other provenience, and unbalanced growth has become a reality. A combination of developing economical engines covering the country in every provenance and linking them with transport MIPs would help spread growth in the country as whole. Transport MIPs can help provide economical growth to surrounding areas by connecting them to a city that holds an economical engine (Aguilar & Ward, 2003). Transport MIPs create a lucrative investment climate around them or foster improvements upon the investment climate. As observed in South Africa and Mozambique they even benefit the small investors in other sectors of the economy via their deliverable positive investment climate (Castel-Branco, 2004).

Saudi Arabia wasn’t free from developing its basic infrastructure until the early 1980s (Ministry of Planning, 2015) and afterwards, the Gulf War coupled with oil market crashes exhausted its resources (Linderoth, 1992). Since then, it has focused on maximizing its revenue from its oil industry. As Fattouh and Sen (2015) assert, the petroleum industry ranks high in the country’s agenda, and its necessary to overcome huge debits due to budgets deficits in the 1980’s and 90’s. Nevertheless, the Kingdom should give concern for establishing more



economical engines along its provinces and constructing Transport MIPs to spread growth to surrounding areas and balance growth.

## CONCLUSIONS

Infrastructure development in Saudi Arabia has significant issues – the investment is in the region of GBP100 Billion per annum and the context in which the planning and development is undertaken has unique issues manifested in terms of political, religious, economical and cultural aspects.

In order to investigate these issues further, and as part of a wider research project considering decision making in Saudi infrastructure development, this paper aimed to understand the priority goals within the Saudi context and to uncover root issues that are interlinked or independent. The study, using consultations with key Saudi decision makers has affirmed the four top priority development goals: upholding Islamic values and the security of the Kingdom; diversifying the economy; developing human resources and balancing growth across the Kingdom.

This knowledge is essential for effective planning and delivery of Saudi infrastructure, many implementations being Mega Infrastructure Projects (MIPs). But the analysis has left us with what seems to be a major root issue: the Five-Year Plan. In its multiple iterations, the Five-Year Plan has shown low levels of success, and its selection of programmes and projects does not deliver some of its main goals. These are identified as: diversifying the economy, developing human resource and a balanced growth along the regions of the Kingdom. Almost fifty years since its first draft, the Five-Year Plans continue to yield low effectiveness and achievement of these policies, which the literature suggests are signs of unsuccessful MIPs. The formation of the Five-Year Plan needs to be investigated.

Saudi Arabia is troubled by a security dilemma and an economic engine that is quite fragile. Uncertainty is high due to a crash in the world market of oil prices and a war with its neighboring country Yemen. The tenth year plan, that would cover from 2015 to 2019 has been put on hold, reflecting how bad the situation is. And yet the economic progress of the country is interlinked with the progress and success of the Five-Year Plans. A key issue is the revision of the plans implementation due to fluctuations within the oil market. The paper recommends that any formation of a Five-Year Plan and its decision makers must consider this aspect.

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